CHAPTER XXXIII.

Now we shall discourse on the Chapter, which treats of incurable diseases (Avaraniya-madhyanam).

Metrical texts:—Hear me describe, Oh child, the diseases which being attended with many a distressing and supervenient symptom, and being treated without rejuvenating and restorative medicines, speedily assume incurable character. The following eight diseases, viz.:—Maha-Váta-vyádhi (paralysis or diseases affecting the nervous system in general), Frameha (morbid discharges from the urethra), Kushtha, Arsha (piles), Vagandara (fistula in ano), Ashmari (stone in the bladder), Mudha-garbha (false presentations) and the eight kinds of Udari (abdominal dropsy) are, by their very nature, extremely hard to cure. A physician with any regard to professional success should abandon a patient laid up with any of the preceding diseases, marked by complications such as, emaciation of the body, loss of strength, dyspnœa, palpitation, wasting, vomiting, dysentery and hic-cough, fever and swoon. A case of Vátavyádhi developing symptoms, such as œdematous swelling, complete anesthesia of the affected part, breaking and palsy (shaking) of the affected limbs, distention of the abdomen, with aching and colic pain, usually ends in death.
A case of Prameha, attended with indications as are to be found under the head of that disease, as well as an increased secretion of urine charged with semen, albumen, etc. and eruptions of specific abscesses (known as Sharāvika etc.) is sure to have a fatal termination.

A case of Kushtha (leprosy) characterised by spontaneous bursting of the affected parts, hoarse voice, and blood-shot eyes, and not proving itself amenable to the five-fold appliances of emetics, purgatives, etc. (Pancha-Karma), usually ends in death. A case of piles attended with thirst, aversion to food, colic pain, excessive haemorrhage, anasarca (Shopha) of the locality, and dysentery is soon relieved by death.

A patient suffering from an attack of fistula in ano, characterised by an emission of flatus (Vāyu), urine, fecal matter, worms and semen through the ulcerated locality, should be given up as lost. A patient suffering from the presence of stone, gravel, or urinary concretions (Sharkā) in the bladder and attended with oedema of the scrotum and the umbilicus, retention of urine, and colic pain in that organ, is soon relieved of his pain by death.

In a case of false presentation (Mudhagarva) an extreme constriction of the mouth of the uterus
(os uteri), development of the peculiar pain of childbirth, which is known as Makkalla, tonic rigidity of the vagina, and situation of the placenta (Aparā) at a wrong place (false pregnancy) and other symptoms (convulsions, cough, dyspnœa, vertigo etc.) described in the Chapter on the Etiology of that disease, forebode the death of the parturient woman.

A patient suffering from abdominal dropsy (ascites) marked by pain at the sides, aversion to food, œdematous swelling of the limbs, dysentery and fresh accumulation of water even after he had been tapped, or evacuated with the exhibition of purgatives, should be given up as incurable. A case of fever in which the patient becomes restless and tosses about in the bed in an unconscious state, and lies extremely prostrate, or is incapable of sitting or of holding himself up in any other position and is besides afflicted with rigor though complaining of a burning sensation within, is sure to end in death.

Similarly, a fever patient developing such symptoms as, the appearance of goose flesh on the skin, an aching gathered-up pain in the cardiac region, blood-shot or congested eyes, and breathing through the mouth should be deemed as already at the threshold of death. Similarly, a case of fever, attended with hic-cough, dyspnœa, thirst, fits of unconsciousness or fainting, and rolling of the eye-balls, proves fatal in a weak and
emaciated patient, who is found to breathe hurriedly through the mouth.

A case of fever proves fatal in a patient, found to be restless or to lie inert in an unconscious (subcomatose) state with dull, clouded, or tearful eyes, or prostrate, somnolent and extremely emaciated. A fever patient and especially an old one extremely enfeebled and emaciated, readily succumbs to an attack of dysentery in which laboured respiration, colic and thirst supervene.

An attack of Phthisis (Yakshmā) leads its victim to death in whom glossiness of the eyes, aversion to food, expiratory (subclavicle) dyspnōea, difficult and up-drawn breathing (Urdha-Shvāsa), and painful and excessive micturition (diarrhoea according to others), manifest themselves. A patient suffering from an attack of Gulma (abdominal gland), and on the verge of death, exhibits such symptoms as laboured and painful respiration, colic pain, unquenchable thirst, aversion to food, loss of consciousness, anaemia, and the sudden obliteration of the Granthi (tumorous or glandular formation).

A person laid up with an attack of Vidradhi (abscess) and exhibiting such fatal symptoms as distension of the abdomen, retention of urine, vomiting, hic-cough, thirst, pain of a varied character (such as aching, excruciating, etc.) and dyspnōea, should be regarded
as to have approached the goal of his life. A patient suffering from an attack of jaundice or chlorosis marked by yellowness of the teeth, nails, and of the conjunctivae, and seeing everything yellow, is not expected to long survive the occurrence of the attack.

A person laid up with an attack of Hæmoptysis, largely vomiting blood, and viewing everything red or blood-coloured with his blood-shot eyes, should be regarded as about to depart this life. A person, insane, extremely enfeebled and emaciated, and sitting up sleepless in the night, or with eyes constantly lifted upward or cast down, would be soon relieved of his earthly suffering. A case of Ṛpasmára (epilepsy) proves fatal in a person, who is extremely emaciated, and whose eye-brows are constantly moving and whose eyes seem fixed in an unnatural (oblique) stare.

Thus ends the thirty-third Chapter of the Sutrasthánam in the Sushruta Samhitā which treats of incurable diseases.
CHAPTER XXXIV.

Now we shall discourse on the Chapter which treats of the mode of preserving the life of a king whose soldiers are on march (Jucta-Seniya-madhyā-yam).

Metrical Texts:—I shall presently describe the measures, which a physician in the king's service should adopt with a view to protect the life of his royal master, specially from acts of secret poisoning, while mobilizing his armies to invade the territory of a neighbouring monarch accompanied by his chiefs and ministers.

A common practice of the enemy under such circumstances is to poison the wells on the roadside, the articles of food, the shades of trees (shadowy places and the fuel and forage for cattle; hence it is incumbent on a physician marching with the troops, to inspect, examine and purify these before using any of them, in case they be poisoned. The symptoms and medical treatment will be fully described and discussed later on in the part, entitled the Kalpa Sthānam.

Men, learned in the lore of the Atharva Veda, hold that death may be attributed to a hundred and one different causes, (lit.: deaths of a hundred and one kinds) of which one (which is that of an old man
naturally and spontaneously expiring) is called natural, while the rest are unnatural or traumatic in their origin. Physicians conversant with the curative virtues of drugs and minerals, and priests well versed in the Vedic Mantras, should jointly protect the king from death, whether due to idiopathic (Doshaja) or extrinsic causes.

The god Brahmá disclosed to the world the Atharva Veda together with the eight allied branches of Vedic literature and the science of medicine. And since a priest (Bráhmana) is well-versed in the aforesaid branches of study, a physician should act subserviently and occupy a subordinate position to the priest. The death of a king usually leads to a political revolution or to popular disturbances and brings about a confusion among the vocations of the different orders of society. The growth of population markedly suffers through such catastrophies.

As the external features of a king resemble those of a common person, while his (king's) commanding majesty, sacrifice, forbearance and fortune are super-human (in their nature and intensity), therefore a man should, who is prudent and seeks his own good, think reverentially of his king, and propitiate him with tokens of loyalty and allegiance as if he were a deity. A physician, fully equipped with a supply of medicine, should live in a camp not remote from the royal
pavilion, and there the persons wounded by shafts of arrows or any other war projectiles, or suffering from the effects of any imbied poison, should resort to him (the physician), conspicuous like a triumphant ensign for his fame and professional success. A physician, well versed in his own technical science, and commanding a fair knowledge of other allied branches of study as well, is glorified by his king and the Brahmans, and is like a banner of victory an ennobling ornament to the state.

The physician, the patient, the medicine, and the attendants (nurses) are the four essential factors of a course of medical treatment. Even a dangerous disease is readily cured, or it may be expected to run a speedy course in the event of the preceding four factors being respectively found to be (qualified, self-controlled, genuine and intelligently watchful).

In the absence of a qualified physician the three remaining factors of treatment will prove abortive like a religious sacrifice performed with the help of an Udgátri, a Hotri, and a Brahmana, in the absence of an Adhvaryam. A qualified physician is alone capable of relieving the pain of many a suffering patient, just as

- **Udgátri**: One of the four principal priests at a sacrifice, who chants the hymns of the Sáma Veda.
- **Hotri**: A priest, who recites the (Riks) prayers of the Rik Veda at a religious sacrifice.
- **Adhvaryu**: A priest of the Yajur Veda, whose duty is to cast the sacrificial beast into the fire.
only a helmsman is capable of taking his boat across a river even without the help and co-operation of a single oarsman.

**Qualities of a physician** — A physician, who is well versed in the science of medicine and has attended to the demonstrations of surgery and medicine, and who himself practises the healing art, and is clean, courageous, light-handed, fully equipped with supplies of medicine, surgical instruments and appliances, and who is intelligent, well read, and is a man of ready resources, and one commands a decent practice, and is further endowed with all moral virtues, is alone fit to be called a physician.

**Patient** — The patient, who believes in a kind and all-merciful Providence, and possesses an unshakable fortitude and strong vital energy, and who is laid up with a curable form of disease, and is not greedy, and who further commands all the necessary articles at his disposal, and firmly adheres to the advice of his physician, is a patient of the proper or commendable type.

**Medicine** — The proper medicine is that which consists of drugs grown in countries most congenial to their growth, collected under the auspices of proper lunar phases and asterisms, and compounded in proper measures and proportions, and which is pleasing (exhilarating to the mind and has the property of
subduing the deranged bodily humours without creating any discomfort to the patient, and which is harmless even in an overdose, and is judiciously administered at the opportune moment.

**Nurse**: That person alone is fit to nurse or to attend the bedside of a patient, who is cool-headed and pleasant in his demeanour, does not speak ill of any body, is strong and attentive to the requirements of the sick, and strictly and indefatigably follows the instructions of the physician.

Thus ends the thirty-fourth Chapter of the Sutrasthānam in the Sushruta Samhitā, which treats of preserving the life of a king whose soldiers are on march.
CHAPTER XXXV

Now we shall discourse on the Chapter which deals with clinical observations (*Aturopakramaniya-madhya-yam*).

A physician should first observe the vital condition (*Ayu*) of the patient before commencing the medical treatment. After that, the nature of the disease, the country and season of the year in which it has made its appearance, as well as the state of digestion, age, body, strength, disposition, habit, previous medicine, natural temperament and the power of endurance of the patient, etc. should be observed and carefully examined.

**Characteristic features of a long lived man:**—Men, the dimensions of whose hands, legs, sides, back, nipples of the breast, teeth, face, shoulders and forehead exceed the average, as well as those whose eyes, arms, phalanges and fingers are longer than the ordinary ones should be regarded as going to live long. Those who have broad chests, broad eye-brows with broader spaces intervening between the muscles of the breasts, and who take in deeper inspirations of breath, will be long lived. Those whose necks, thighs, and generative organs are shorter than those of the average type, or those whose voices and umbilical cavities are deep, and whose breasts are unraised and thick-set, and external ears broad, fleshy and hairy,
with the occipital region fully developed and protruded, will enjoy a longer span of life. Men, on whose bodies sandal paste and similar preparations begin to dry up from the head downward, while those applied over the chest become absorbed later, should be looked upon as persons endowed with an uncommonly longer duration of life.

The medical treatment of such a patient may be unhesitatingly taken in hand by a physician. Persons, exhibiting bodily features other than those described above, should be looked upon as short-lived men, while those, who are possessed of features common to men of both the above mentioned types, should be considered as keeping the mean between them as regards longevity (Madhyamáyuh).

**Authoritative verses on the subject:**—A man, with deep-set bones, ligaments, and veins, and tough and thick-set limbs, and firm and unflinching sense organs, as well as one whose body gradually develops a more and more symmetrical shape, should be looked upon as a **long-lived man**. The man, who has not ailed for a single moment even from the day of his birth, and has been getting more and more strong-limbed every day through the cultivation of his inborn sense and a better knowledge of the laws of health, is sure to live to a good old age in the full enjoyment of his senses and intellect.
Madhyamāyuh:—Now, hear me describe the bodily features of a man of a mean or average duration of life (Madhyamāyuh). The man, the integuments of whose lower eyelids are marked with two or three well-marked and extended lines or furrows, and whose legs and external ears are thick and fleshy, and the tip of whose nose is turned a little upward, and who has up-pointed lines directly running through the middle of his back, is expected to live up to the ripe old age of seventy years.

Specific traits of a short-lived man:—Now, hear me describe the specific traits, which characterise the body of a short-lived man. A man with short phalanges of fingers, a narrow back, and external ears abnormally raised up from their natural seats, and who is possessed of a large penis, a high nose, a breast covered with ringlets of curly hair, and who exposes the gums of his teeth, or whose eyes roll while talking or laughing, is not expected to see more than twenty-five summers.

We shall now give the exact measures of the different limbs and members of the body for the better ascertainment of the duration of life of a patient under investigation.—The legs, the arms, and the head are called the limbs of the body, while their component parts are called the members (Avayavas). The great toe of a man, or the one next to it, measured
with his own fingers should measure two fingers' width in length, the lengths of the other toes (the third, fourth, and small ones) successively diminishing by a fifth part of that of his middle finger (Pradeshini).

The fore-sole and the sole proper respectively should measure four fingers' width in length and five fingers' width in breadth. The heel of the foot (Párshni) should measure five fingers' width in length and four fingers' width in breadth. The foot itself should measure fourteen fingers' width in length. The girth of the foot, as well as the circumference of the middle parts of thighs and knee-joints, respectively should measure fourteen fingers in width.

The part of the leg between the ankle and the knee-joint should measure eighteen fingers' width in length, while the part between the joint of the waist and the knee-joint should measure thirty-two fingers' width in length, the entire leg thus measuring fifty fingers' width in all. The length of the thigh is the same as that of the part lying between the heel and the knee-joint (Janghá).

The scrotum, the chin, the (two rows of) teeth, the exterior line of the nostrils, the roots of the ears, and the intervening space between the eyes, should respectively measure two fingers' width in length. The non-erected penis, the cavity of the mouth, the two rows of teeth, the nose, the height of the neck,
the ears, and the forehead, and the space intervening between the pupils of the eyes measure four fingers' width in length.

The entire length of the vaginal canal should measure twelve fingers' width. The space lying between the penis and the umbilicus, as well as the one intervening between the chest and the upper end of the throat (lit: neck), like the one lying between the tips of the two nipples of the breast, should measure twelve fingers' width in length. The length of the entire face should measure twelve fingers' width. The girth round the wrist and the fore-arm of a man should measure twelve fingers.

The girth round the knee-joint is sixteen fingers' width and the length between the wrist and the elbow should measure sixteen fingers' width. The part of the arm between the elbow and the tip of the middle finger should measure twenty-four fingers' width in all. The length of the entire arm measures thirty-two fingers' width, and the girth round the thighs should measure thirty-two fingers' width. The palm of the hand should measure six fingers' width in length and four fingers' width in breadth. The space between the bottom of the ball of the thumb to the root of the index finger, as well as the space between the root of the ears to the outer corner or angle of the eyes, should measure five fingers' in length. The middle finger should
measure five fingers' width in length. The index and the ring-fingers respectively should measure four and a half fingers in length, the thumbs and the little fingers respectively measuring three and a half fingers.

The fissure of the mouth should measure four fingers in length. The girth round the neck should measure twenty fingers. Each of the cavities of the nostrils should measure one and three quarter parts of a finger in length. The region of the iris occupies a third part of the entire area of the cornea. The region of the pupil should measure a ninth part thereof.

The arch extending from the hairy extremity of the templar region to the middle point of the back of the head should measure eleven fingers. The distance between the middle of the head and the terminal point of the hairy portion of the neck should measure ten fingers in length. The girth of the neck measured from the back of one ear to that of the other should be fourteen fingers. The length of the pelvic region of a young woman measured from below the anterior side of the thigh joints should be found to be equal to the breadth of the chest (Vakshah) in a male subject (twelve fingers).

The thigh of a woman should be eighteen fingers in breadth and equal to that of the waist of a man. The entire length of a male human body should be a hundred and twenty fingers.
Authoritative verse on the subject:—An intelligent physician should regard the organism of a man of twenty-five or of a woman of sixteen years of age, as fully developed in respect of the maturity of the seven fundamental principles of the body such as, serum, blood, &c). The dimensions of the different limbs and members of the body, laid down above, should be understood as to have been measured by the standard of one's (man's or woman's) own finger's width, and a person, whose limbs and organs are found to correspond to the above-said measures, is sure to live to a good and hearty old age, as a necessary and befitting sequel to a happy and prosperous career in life. In the case of a partial correspondence of one's limbs and organs to the above-said measures and proportions, a man should be regarded as having an average life and prosperity. A person whose limbs fall short of the above-said measures should be regarded as an indigent and short-lived person.

Physical temperament (Sāra):—Now we shall describe the characteristic traits of the different preponderant principles (Sāra) or temperaments of the human organism. A man, who is possessed of a good retentive memory, and is intelligent, valorous and cleanly in his habits, and whose mind is graced with such rare and excellent virtues as, purity of thought, and a fervent and unflinching devotion to gods and the reverend, and who exerts himself for the furtherance
of the absolute good, should be regarded as a man of Satvasāra (psychic or illumined) temperament.

A man with glossy, white and close-set bones, teeth, and nails and who has begotten a large family of children, and shows a marked amative tendency, should be looked upon as a man in whom the principle of semen decidedly preponderates. A man with a thin and sinewy body, and who exhibits traits of excessive strength, and possesses a deep resonant voice, and a pair of large and handsome eyes, and who is successful in every walk of life, should be looked upon as one in whom the principle of marrow preponderates. A man with a large head, and a large pair of shoulders, and having firm teeth, bones, check-bones, and finger-nails, should be considered as one in whom the principle of bone preponderates.

A man with a large and bulky body, and who is capable of enduring a large amount of fatigue or physical exertion, and who naturally talks in a soft and melodious voice, and whose bodily secretions such as urine and perspiration are characterised by coldness should be regarded as one of a fatty temperament. A man with an erect and upright frame, and deep-set bones, and joints in thick layers of flesh, should be regarded as one in whom the principle of flesh predominates.

A man, whose finger nails, eyes, tongue, palate,
lips, palms of hands and soles of feet are glossy, and tinge
ninged with a shade of red, should be looked upon as one in whom blood forms the essential and predominant principle. A man with a soft, smooth and pleasant skin and hair should be considered as one in whom serum (Tvak) forms the essential principle of the body. In respect of worldly success and longevity, men of each of the aforesaid types should be successively judged inferior to men belonging to the one preceding it in the above order of enumeration.

Authoritative verse on the subject: A qualified physician should examine the duration of life in a patient with the help of the aforesaid measures of limbs and the essential bodily principles, before proceeding to take up his medical treatment, and his professional success should be decidedly increased thereby.

All the diseases, whose names have been specifically enumerated before, may be grouped under any of the three different heads as the curable, the suppressible (Yāpya) and the incurable (lit: fit to be pronounced as hopeless).

Each of these different types, in its turn, should be carefully observed so as to determine whether it is a primary or an independent disease, or merely an accessory or sympathetic one, or the premonitory indication of an incipient distemper in its incubative stage.
An *Aupasargika* (sympathetic) disease is merely a symptom developed in the course of an original or primary malady, and which has its foundation in the very nature or component factors of the pre-existing distemper. A disease, which manifests itself from the commencement of a case and is neither an accessory symptom, nor a premonitory indication of any other distemper, is called a *Prák-kevalam* (primary or original) one. A disease which indicates the advent of a future or impending malady is called a *Purvarupam* (premonitory stage or indication of a disease).

The medicinal remedy to be administered in any particular case should be selected with an eye to the curative virtues of each of its components, so as not to clash with the nature (cause) of the disease and its accompanying symptoms, and to prove simultaneously soothing to both of them. On the contrary, a violent unfavourable symptom should be first attended to and checked in a case where it would be found to have grown stronger and more distressing or dangerous than the original malady in course of which it has been developed.

A primary or independent malady, unattended with any of the distressing or unfavourable symptoms, should be treated according to its indications and the nature of the deranged humours involved therein, while in an incubative disease the treatment should
consist in subduing a premonitory symptom as soon as it would make itself manifest.

**Authoritative Verse on the subject:**—As there is not a single disease, which can make its appearance without the participation of any of the deranged bodily humours, a wise physician is enjoined to administer medicines according to the specific features of the deranged humours involved in a disease whose nature and treatment have not even been described in any book on medicine. The different seasons of the year have been described before.

**Metrical Texts:** In the cold season, a disease should be treated with measures and remedies endued with the virtue of destroying or warding off cold, while in summer the medicinal treatment should consist of measures and applications capable of allaying the heat. The medical treatment of a disease should be commenced just at the opportune moment, which should not be allowed to expire in vain under any circumstances whatsoever. A course of medical treatment commenced at an inopportune moment, or not resorted to at the advent of its proper time, as well as over or insufficient medication, proves abortive even in a curable type of disease. The proper medical treatment (of a disease) is that which successfully copes with the malady under treatment, and arrests the recrudescence of a fresh one by way of sequel, and not
that, which, though subduing a particular distemper, is immediately followed by a new one.

It has been demonstrated before that the food of a man is digested only with the help of the digestive fire or heat (Pāchakāgni), which may be divided into four different kinds (states). One of these kinds is due to it not being in any way affected by the deranged humours of the body, while the other three are respectively ascribed to the fact of their becoming so deranged. The digestive fire or heat becomes irregular or fitful (Vishamāgni) through the action of the deranged Vāyun, becomes keen, through the action of the deranged Pittam, and dull or sluggish, through the action of the deranged Kapham. The fourth kind (Sama) continues in a state unaffected by any of the morbid humoral constituents of the body owing to their maintaining the normal equilibrium.

**Samāgni and Vishamāgni:**—The digestive heat, which fully digests the ingested food at the proper time without the least irregularity, thus reflecting the continuance of the bodily humours in their normal state, is called Samāgni. The digestive heat which is irregular in its action, and which sometimes helps the process of complete digestion, and produces distension of the abdomen, colic pain, constipation of the bowels, dysentery, ascites, heaviness of the limbs,
rumbling in the intestines, and loose motions (diarrhoea) at other times, is called Vishamágni.

**Tikshnágni:**—The digestive heat, which helps the digestion of even a heavy meal within an incredibly short space of time, is called “Keen” (Tikshnágni) and which becoming abnormally augmented begets an excessive or voracious appetite (Atyágni), helps a glutton to digest his frequent meals, and produces a parched throat, palate and lips, heat and other discomforts.

**Mandágni:**—The digestive fire or heat which causes the tardy digestion even of a scanty meal, and produces heaviness of the abdomen and head, cough, difficult breathing, water-brash, nausea, and weariness of the limbs simultaneously with the taking thereof, is called dull or sluggish (Mandágni).

**Metrical Texts:**—The digestive fire of the Vishama kind brings on diseases characterised by the derangement of the Váyu. A keen (Tikshna) digestive fire brings on bilious (Pittaja) affections, while a sluggish (Manda) fire gives rise to diseases marked by a deranged state of the Kapham. Endeavours should be made to keep the digestive fire of the Sama type (normal or regular appetite*) in an unimpaired state.

* There is a difference between “Agni” and “appetite.” Agni includes bile and pancreatic secretions, and hence indicates the state of one’s digestion. Appetite, though not an unerring indicator of the process, is the effect of Agni.
The one known as Vishama (irregular) should be corrected by a diet consisting of emollient, acid or saline substances. In a case of abnormally keen digestive fire, the medical treatment should consist in prescribing purgatives and a diet in the composition of which sweet, cooling, and fatty or albuminous matters largely enter. The same treatment should be adopted in (Atryâgni) as marked in case of voracious appetite, and a diet consisting of buffalo-milk, or its curd (Dadhi) and liquid buffalo-butter should be prescribed for the patient in addition. Emetics should be administered in a case of dull or sluggish digestion (Mandâgni), and the patient should be restricted to a diet consisting of articles of a pungent, astringent or bitter taste.

Metrical Texts:—The fire, that burns within a person, is godly in its subtle essence, and possesses the divine attributes of atom-like invisibility, weightlessness, etc., and is the digestant of food. It takes up the lymph chyle of different tastes for the purpose of digestion, and is invisible owing to its extremely subtle essence. The three vital Váyus known as Prâna, Apâna and Samâna, located in their own spheres within the organism, feed it and keep it burning.

The three stages of man may be roughly described as (1) infancy or childhood, (2) youth or middle age, and (3) old age or dotage. Childhood extends up to the...
sixteenth year of life, and children may be divided into three different classes, according as they are fed on milk, or on milk and boiled rice or on boiled rice alone. A child lives exclusively on milk up to the first year of its life, it is fed on milk and boiled rice (hard food) up to the second year, and is thenceforward nourished with boiled rice (hard food).

The middle age of a man extends from the sixteenth to the seventieth year of his life, and exhibits the traits of growth, youth, arrest of development and decay.

The process of growth or building goes on up to the twentieth year of life, when youth or the age of maturity sets in and holds sway over the body of a man up to the thirtieth year of his life,—the strength, semen, and all the organs and vital principles of the body attain (their, full maturity at the age of forty. Thenceforth decay gradually sets in up to the seventieth year of life. After that the strength and energy of a man dwindle day by day. The organs and virility grow weak and suffer deterioration. The hair turns to a silvery white, the parched skin looks shrivelled and becomes impressed with marks of dotage (crow’s feet-marks). The skin hangs down and becomes flabby, the hair begins to fall off, and symptoms of alopecia mark the smooth, sheen and balded pate. The respiration becomes laboured and painful. The body, worn out like an old and dilapidated building, shakes with fits of
distressing cough. Such a man is incapable of all acts, and does but imperfectly perform all bodily functions. He has grown old.

The dose of medicine should be increased with the age of a patient till the age of decay, and reduced after the expiry of the seventieth year to the quantity (which is usually prescribed for an youth of sixteen).

**Authoritative verses on the Subject**—Kapham is increased during the years of childhood and Pittam in middle age; while an increase of Vāyu /nervous derangement/ marks the closing years of life. The use of strong or drastic purgatives, and cauterisation are alike prohibited in cases of children and old men. They should be used only in weakened or modified forms if found indispensably necessary.

It has been stated before that the body of a person is either stout, thin or of an average (middling) bulk. A stout person should be reduced in bulk with depletive measures, while a physician should try to make a thin patient gain in flesh. A human body, which is neither too thin nor too stout, should be made to maintain its shapely rotundity.

We have already discoursed on the strength of the body. Now in a particular case under treatment, it is primarily incumbent on the physician to enquire whether the patient is naturally weak, or has become
so through a deranged condition of the bodily humours or old age. And since it is the strength of a patient which makes all remedial measures (such as cauterisation, etc.) possible, it should be regarded as the grandest auxiliary to a medical treatment of whatsoever nature it may be.

**Metrical Texts:**—There are some men who are strong though thin; while others are weak, though stout; and accordingly a physician should determine the bodily strength of a patient by enquiring about the capacity of his physical endurance and labour. Sattvam or fortitude denotes a kind of (stoic) indifference of one's mind to sensations and sources of pleasure or pain.

A man of strong fortitude (Sattvika temperament) is capable of enduring everything, or any amount of pain by repressing his mind with the help of his will or intellect. A man of a Rājasika turn of mind (strong, active, energetic) may be made to patiently submit to a course of painful medical treatment by means of persuasive counsels and the logic of the inevitable, whereas a man of a Tāmasika temperament (a worldly cast of mind characterised by Nescience) is simply overwhelmed at the prospect of bodily pain.

Later on, we shall have occasion to deal with the different types of physical treatment and of remedial agents in general. A particular country, or a season
of the year, a particular disease or a peculiar mode of living, any particular kind of physical labour or exercise, or the specific properties of the water of any particular locality, or day sleep, or a juice of any particular taste, is or are said to be congenial (Sátmya) to a man, or a man is said to be naturalised to these conditions and environments, when they fail to produce any injurious effect on his health, though naturally unwholesome to others.

**Metrical Texts** :—A thing of any taste whatsoever, or any kind of habit or physical exercise is said to be congenial to a man which, instead of in any way tending on his health, contributes to his positive pleasure and comfort.

**Features of an Anupa country** :—A country may be classed either as an Ánupa, Jángala or a Sádhrana one, according to its distinctive physical features. An Ánupa (watery or swampy) country contains a large number of pools, and is wooded and undulated with chains of lofty hills traversing its area, and which is impassable owing to its net-works of rivers and sheets of accumulated rain-water rippling before the currents of the gentle, humid air. It is inhabited by a race of stout, shapely and soft-bodied men, susceptible to Vátila and Kaphaja diseases.

**Features of Jángala and Sádhrana countries** :—The country, which presents a flat
surface and whose dull monotony is enlivened here and there by scanty growths of thorny shrubs and the tops of a few isolated hills or knolls, and in which the waters from springs and wells, accumulated during the rains, become nearly drained, and strong gales of warm wind blow (during the greater part of the year) making its inhabitants, though thin, strong, tough, and sinewy in their frames, subject to attacks of diseases, is called Jángala. A country, which exhibits features common to both the aforesaid classes, is called Sádhárana or ordinary.

Authoritative Verses on the Subject:—A country derives the epithet of Sádhárana from the ordinary character of its heat, cold and rainfall, and from the fact of the bodily humours maintaining their normal state of equilibrium within its confines. A disease originated in, and peculiar to a particular country fails to gain in intensity, if brought over to, and transplanted in a country of a different character. A man, who observes a regimen of diet and conduct soothing to the deranged bodily humours accumulated in the country he has come from, and aggravated and manifest in the shape of a disease in the country he has been living for the time being, need not apprehend any danger from the altered conditions of his new abode, for the fact of his not observing a regimen of diet and conduct regarded beneficial in consideration
of the physical features of the latter place. A disease of recent growth or origin unattended with any distressing or unfavourable complications, and unsuited to the nature of the country*, the season of the year,† the temperament,‡ and § the adopted or congenial or naturalised traits of the physique of a patient with a regular and unimpaired state of digestion (Samágni), and who exhibits traits of strength, fortitude and longevity and commands the co-operation of the four commendable factors of a course of medical treatment, readily yields to medicine.

A disease, which is marked by features other than those described above, should be regarded as incurable, while the one exhibiting traits common to both the above-said types, should be looked upon as extremely hard to cure.

In the case of a former medicine proving abortive, a different one should not be resorted to as long as the effect of the first would last, inasmuch as a mixture or a confusion of medicinal remedies tends to produce a positively injurious effect. A medicine or any medicinal

* As the development of a disease due to the deranged Kapham in a country of the Jángala type.
† As the attack of a bilious distemper in forewinter, or of a Vátaja malady in autumn, or of a Kaphaja affection in summer.
‡ As the appearance of Kaphaja disease in a patient of bilious temperament.
§ As the appearance of a Kaphaja disease in a subject habituated to the use of viands of pungent taste.
measure, failing to produce any tangible effect, may be repeated in quick succession in a difficult or dangerous disease, if it be empirically found to be beneficial in the case under treatment. The intelligent physician, who, considering the nature of the season, etc., fully conforms to the above-said rules of medical treatment, conquers the bodily distempers and dispels the gloom of Death from the world with his medical skill.

Thus ends the Thirty-sixth Chapter of the Smrashānam in the Sushruta Samhitā, which treats of clinical observations.
CHAPTER XXXVI.

Now we shall discourse on the Chapter, which treats of miscellaneous remedies for swellings, etc. *(Mishraka-madhya-yam).*

**Metrical Texts:** — A medicinal plaster, composed of Mātulanga, Agnimanta, Devadāru, Mahauṣṇḍham, Ahinṣrā, and Rāṣnā pasted together and applied to the seat of the affection, leads to the resolution of a swelling, due to the action of the deranged Vāyu.

A plaster composed of Durvā, Nalamulam, Madhukam, and Chanda nam, as well as plasters composed of drugs of cooling properties,† brings about the resolution of an inflammatory swelling of the Pittaja type, and proves similarly beneficial to a traumatic swelling, or to one which has its origin in the vitiated condition of the blood.

Measures, laid down in connection with a swelling resulting from the effects of poison, would lead to the resolution of a Pittaja swelling as well.

* The nomenclature of the chapter is based, according to certain authorities, on the fact of its jointly treating of eight principal processes of absorption, suppuration, spontaneous bursting, etc. of a swelling; while some there are who hold that the name of the chapter is derived from the fact of its containing remedial measures commonly (Mishrakam) beneficial to swellings and ulcers.

† Belonging to the groups (Gana) of medicinal herbs, which go by the names of their first components, such as the Kākalyādi group (Gana), the Utpalādi group etc.
A plaster, composed of Ajagandhá, Ashvagandhá, Kála, Asaraká, Ekaishiká, and Ajashringi pasted together, and applied to the spot, leads to the resolution of a Kaphaja swelling (appearing at any part of the body).

A plaster, composed of the components of the above-said groups of medicinal drugs and Lodhram, Pathyá, Pinditakam, and Anantá, brings about the resolution of a swelling due to the simultaneous derangement of the three fundamental humours of the body (Sánnipatikam).

A medicinal plaster, prescribed for a swelling due to the deranged Váyu, should be applied by mixing it with a little rock salt, acid (Amla), and oil or clarified butter. Similarly, a plaster, prescribed for the resolution of a Pittaja swelling, should be applied cold, and with a little quantity of milk added to it. A plaster for the resolution of a Kaphaja swelling should be applied warm to the affected part, and with the addition of a considerable quantity of an alkali and cow’s urine.

**Pachana Plasters:**—A plaster composed of the seeds of Shana, Mula, Shigru, Tila and Sarshapa, Yava-powder, Kinva (enzyme), and linseed pasted together, or one consisting of thermogenetic drugs (such as Kushta, Aguru, etc.), would establish suppuration in a swelling.
Dārana Plasters:—A plaster composed of Chiravilva, Agnika, Danti, Chitraka, Hayamāraka and the dung of pigeons, vultures and storks (Kanka) pasted together, would lead to the spontaneous bursting of a swelling. An alkali, or its ingredients should be regarded as a powerful auxiliary in bringing about the spontaneous bursting of a swelling.

Pidaṇa Plasters:—A plaster composed of the roots and bark of slimy trees (Shālmali, Shelu, etc.), or of barley, wheat, and Māsha pulse powdered together, would increase the secretion of pus from an ulcer, or a swelling that has burst.∗

Shodhana Plasters:—A Kashāya† (decoction) of Shankhini, Ankota, Sumanah, Karavira, and Suvarchchalā, or of drugs belonging to the group (Ganas) known as the Āragvadādi-Varga, should be used in washing and purifying (asepsising) the contents of an ulcer, or a secreting swelling.

Shodhana Vartī:—A lint saturated with a plaster of Ajagandhā, Ajashringi, Gavākshi, Lāngalāhvaya, Putikā, Chitraka, Pāthā, Vidanga, Elā, Renuka, Tri-katu, Yavakshāra, the five kinds of salt, Manahshilā,

∗ The plaster should be applied all round the swelling, leaving its head free and exposed.

† A decoction with one part of a drug mixed with four, eight or sixteen parts of water, the whole being boiled down to a quarter part of the entire quantity.
Kāsīṣa, Trivrita, Danti, Haritāla and the Saurashtra-
mrittikā, and inserted into an ulcer or an open swelling,
brings about the purification of its interior, and these
drugs and substances should be regarded as the ingre-
dients of Shodhana Vartis (aseptic plugs).

**Shodhana Kalka** — A kalka (aseptic paste),
composed of the preceding drugs and substances, is
possessed of the virtue of purifying the interior of an
ulcer, or open swelling.

Oil or clarified butter prepared with the aforesaid
Ajagandhā, Ajāshringi, etc., and Kāsīsa, Katsurohini,
Jātkanda, and the two kinds of Haridrā, and applied to
an ulcer or open swelling, purifies its interior. The
medicated Ghritam prepared with the expressed
juice of Arka roots, Uttamā, the milky juice of
Snuhi plants, drugs abounding in alkalis, Jāti-roots, the
two kinds Haridrā, Kāsīsa, Katsurohini and the aforesaid
plug-drugs (Sodhana-Varti) pasted together, should be
regarded as possessed of a virtue similar to the preceed-
ing one.

A medicated oil prepared with Mayuraka,
(Apang), Rājabriksha, Nimva, Koshātaki, Tila,
Vrihati, Kantakāri, Haritāla, Manahshilā, and the aforesaid
plug-drugs (purgative drugs according to others),
should be used for the purpose of purifying the interior
of an ulcer. A pulverised compound consisting of Kāsīsa,
Saindhava, Kinva, Vacht, the two kinds of Haridrā,
and the component drugs of the aseptic plug powdered together, should be used for the purification of the cavity of an ulcer. For the same purpose a condensed extract (Rasa-Kriya)* should be made of the essence of the drugs belonging to the Sālsāradi, Patolādi, and Triphalādi groups.

**Dhupanam** :—A wise physician should fumigate (Dhupanam) an ulcer with the fumes of a compound consisting of Sriveshtaka, Sarjarasa, Sarala, Devadāru, and the drugs belonging to the Sālsāradi group, pulverised together and made into an (aseptic) fumigating compound.

A cold infusion (Shhita-Shritam) of trees (Vata, Audumvara, Ashvattha, etc.) which are cooling and astringent in their virtue, should be used in healing or setting up a process of granulation in an ulcer.

**The Ropana-Varti** :—Plugs of drugs such as Soma, Amrita (Gulancha), and Ashvagandhā, or of those belonging to the Kākolyādi group, or of the sprouts of milk-exuding trees (Kshirivrikshas such as, Vata, Audumvara, etc.) and inserted into an ulcer tend to help its granulation (Ropana). A paste (Kalka) of Samangā, Soma, Sarala wood, Soma-Valka, (red)

* The process consists in mixing the drugs with water weighing eight or sixteen times their combined weight, and then boiling them down to an eighth or sixteenth part of the entire quantity.
Chandana, and drugs belonging to the Kākolyádi group, is recommended for the healing of an ulcer.

A medicated Ghritam, prepared with the Prithak-parni, Átmaguptá, Haridrá, Daruharidrá, Málati, Sitá, and drugs belonging to the Kākolyádi group, is renowned for its healing properties. A medicated oil prepared with Kálánusári, Aguru, Haridrá, Daru-Haridrá, Devadáru, Priyangu, and Lodhra, is possessed of a similar efficacy.

A pulverised compound consisting of Kanguká, Triphalá, Lodhra, Kásisam, Shravaná and the barks of Dhava and Ashvakarna powdered together, is possessed of a similar healing property. The use of a pulverised compound consisting of Priyangu, Sarjarasa, Pushpa-kásisa, Tvaka, and Dhava powdered together is commended for the healing of an ulcer. A condensed extract (Rasakriyá) of the bark of milk-exuding trees (such as Vata, Ashvattha etc.) and the drugs known as the Triphalá, should be successively used for the healing of an ulcer.

_Utsadananam_:—The drugs known as Apámárga, Ashvagandhá, Tálapatri, Suvarchhalá and those belonging to the Kákolyádi group, should be used for the growth of flesh in an ulcer (Utsádana).

_Avasadananam_:—A compound consisting of Kásisa, Saindhava (rock salt), Kinvam, Kuruvinda,
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Manalshila, the shell of a hen's egg, the blossoms of Jati flowers, the seeds of Shirisha, and Karanja, and powders of the abovesaid metals (Dhatus) mixed together, should be used in destroying the fleshy super-growths of an ulcer (Avasadanam).

A wise physician should use all the drugs and substances as have been enumerated in connection with the healing or establishing of suppuration, etc. in an ulcer, or as many of them as would be available at the time.

Thus ends the thirty-sixth Chapter of the Sutrassthana in the Sushruta Samhita which treats of miscellaneous remedies for inflammatory swellings.
CHAPTER XXXVII.

Now we shall discourse on the Chapter, which deals with the distinctive traits of the different classes of soil commended for the growth or culture of medicinal herbs (Bhumī-Pravibhāga-Vijnāniyamadhyāyam).

These are the general features of a ground which is recommended for the culture of medicinal plants or herbs. A plot of ground, whose surface is not broken or rendered uneven by the presence of holes, ditches, gravel and stones, nor is loose in its character, and which is not disfigured by ant-hills, nor used for the purposes of a cremation or execution ground, and which does not occupy the site of a holy temple, is favourable for the growth of medicinal herbs. A ground which possesses a soil which is glossy, firm, steady, black, yellowish or red and does not contain any sand, potash or any other alkaline substance, and is favourable to the germination of plants and easily pervious to the roots of plants growing thereon, and which is supplied with the necessary moisture from a close or adjacent stream or reservoir of water, is recommended for the growth of medicinal plants and herbs. Plants should be regarded as partaking of the virtues of the ground they grow upon. A plant, growing in such a commendable site, should be examined as to its being infested with worms.
or insects, or as to its being anywise infected with poison, or cut with an arm, or affected by winds, atmospheric heat, or an animal's body. It should be culled or uprooted in the event of it being found sound, healthy, deep-rooted, full-bodied, and of matured sap. The gatherer should look towards the north at the time of culling.

A plot of ground with a pebbly, steady, heavy, dusky or dark coloured soil, and which conduces to the growth of large trees, and yields rich harvests of corn, should be regarded as permeated with the specific virtues of essential Earth-matter.

A ground having a cool, glossy, white coloured soil, which is adjacent to water, and whose surface is covered with a lavish growth of glossy weeds and luscious shady trees, should be considered as characterised by the essential properties of water (Aqvuguna). A ground having a gravelly soil of varied colours, and which contributes only to the germination of scanty and yellowish sprouts, should be looked upon as permeated with the attributes of essential fire (Agniguna). A ground with an ash-coloured or ass-coloured (grey), soil, and on which withered looking, sapless, large-holed trees of stunted growth, somehow eke out a miserable existence, should be considered as being controlled by the specific properties of air (Anilaguna); while the one having a soft, level surface with large trees and lofty
hills cropping up at intervals thereon, and which is covered with growths of weeds and under-shrubs, and is endued with a dark soil, kept moist and sappy by the percolation of invisible (subterranean) water, should be looked upon as permeated with the essential properties of sky (Ākāshaguna).

According to certain authorities, the roots, leaves, bark, milky exudations, essence and fruits (seeds) of medicinal plants and herbs, should be respectively culled in the early part of the rains (Prāvrit) and in the rainy season proper (Varsha), autumn, (Sharat), fore-winter (Hemanta), spring (Vasanta) and summer (Grishma). But we cannot subscribe to that opinion inasmuch as the nature or essential temperament of the earth is both cool (Saumya) and hot (Āgneya). Accordingly drugs of cooling virtues should be culled during the cold seasons of the year, and the heat-making ones in the hot season, as they do not become divested of their native virtues at those seasons of the year. Medicinal plants of cooling virtues, which are grown on a soil of cool temperament and are culled during the cool seasons of the year, become intensely sweet, cooling and glossy. These remarks hold good of other medicinal plants and herbs.

Herbs of purgative properties, which are grown on a soil permeated with the specific virtues of water or earth matter, should be culled as the most effective of their kind. Similarly, herbs of emetic virtues should
be culled from a ground permeated with the essential virtues of fire, sky and air.

Herbs exercising both purgative and emetic virtues should be culled from ground exhibiting features common to both the two aforesaid classes of soil. Similarly, herbs possessed of soothing properties (Sanshamanam)* are found to exert a stronger action in the event of their being reared on a soil permeated with the essential properties of sky.

All medicinal herbs and substances should be used as fresh as possible, excepting Pippali, Vidanga, Madhu, Guda, and Ghritam, (which should be used in a matured condition i.e. not before a year). The milky juice or sap of a medicinal tree or plant should be regarded as strong and active under all circumstances. Herbs and drugs, that had been culled or collected within the year, might be taken and used in making up a medicinal recipe in a case where fresh ones would not be available.

**Authoritative Verses on the Subject**—Medicinal herbs and plants should be recognised and identified with the help of cowherds, hermits, huntsmen, forest-dwellers, and those who cull the fruits and edible roots of the forest. No definite time can be laid down for the culling of the leaves and roots of

* Herbs or drugs, which in virtue of their own essential properties soothe or subdue a disease without eliminating the morbid humours or without exercising any emetic or purgative action.
medicinal plants, etc., such as are used in compounding the recipe, which is called the Patra-lavanam, and which covers, within its therapeutic range, diseases, which are peculiar to the entire organism (such as Váta-vyádhi, etc.).

As soil admits of being divided into six different classes according to its smell, colour, taste, etc. so the sap of a medicinal plant may assume any of the six different tastes through its contact with the peculiar properties of the soil it grows on. Tastes such as, sweet, etc., remain latent in water, which imparts them to the soil in a patent or perceptible condition.

A plot of ground, exhibiting traits peculiar to all the five fundamental material principles (such as the earth water, fire, etc.), is said to be possessed of a soil of general character (Sádháráni Bhumi), and medicinal plants and herbs partake of the specific virtues of the soil they grown on.

Drugs, whether fresh or old, and emitting a contrary smell, or in any way affected as regards their natural sap or juice, should not be used for pharmaceutical purposes.

The virtues of such medicinal drugs and substances such as Vidanga, Pippali, Madhu, and Guda, improve

* Hence the doctrine, as regards the calling of the different parts of a medicinal plant such as, the leaves, roots, etc., in the different seasons of the year, naturally falls to the ground.
(after a year). Accordingly all drugs and medicinal herbs, excepting the preceding ones, should be used fresh and unsoiled, or uninjured by insects.

Blood, nails, or hair etc., of animals, 'officinally laid down to be used in our Pharmacopœia), should be taken from young and healthy animals, and the ordure, urine, or milk of an animal, (enjoined to be used for medicinal purposes), should be collected at a time after it has completed its digestion.

The pharmacy and the medicinal store of a physician should occupy a commendable site and an auspicious quarter of the sky (North or East), and the collected medicines should be kept tied in pieces of clean linen, or stored in earthen vessels and hollow tubes of wood, or suspended on wooden pegs.

Thus ends the thirty-seventh Chapter of the Sutrasthanam in the Sushruta Samhitā which treats of the Classification of grounds for the culture of medicinal plants and herbs, etc.
CHAPTER XXXVIII.

Now we shall discourse on the Chapter which deals with the general classification of drugs according to their therapeutical properties (Dravya-Sangrahaniya-madhayayam).

These drugs are usually made into thirty-seven different groups (Gana) which are as follows:—

The Vidārigandhādi Group:—The drugs known as Vidārigandhā, Vidāri, Sahadevā, Vishvadevā, Shvadanstrā, Prithakparṇi, Shatāvari, Sāriva, black Sāriva, Jivaka, Rishavaka, Mahāsahā, Kshudra-Sahā, Vrihati, Kantakāri, Punarnavā, Eranda, Hansapādi, Vrishchikāli, and Rishavi, form the group known as the Vidāri-gandhādi.

Metrical Text:—The present group of drugs subdues the action of the deranged Vāyu and Pittam and proves beneficial in phthisis (Shosha), Gulma, aching of the limbs, Urdha-Shvāsa and cough.

The Āragvadhādi Group:—The drugs known as Āragvadha, Madana, Gopaghontā, Kutaja, Pāthā, Kantaki, Pātalā, Murvā, Indrayava, Saptaparna, Nīmva, Kuruntaka, Dāsi-kuruntaka, the two kinds of Karanja, Patola, Kirāttikua, Guduchi, Chitraka, Shāngshtā, and Sushavi form the group known as the Āragvadhādi.
Metrical Text:—The group under discussion destroys the deranged Kapham and the effects of poison and proves beneficial in cases of Meha (morbid discharges from the urethra), Kushtha, fever, vomiting and itching of the body and acts as a purifying (aseptic) agent in the case of an ulcer.

The Varunādi Group:—The drugs known as Varuna, Ārtagala, Shigru, Madhu-Shigru, Tarkāri, Mesha-Shringi, Putika, Naktamāla, Morata, Agnimantha, the two kinds of Sa iriyaka, Vimvi, Vasuka, Vasira, Chitraka, Shatāvari, Vīlva, Ajashringi, Darbhā, and the two kinds of Vrihati form the group known as the Varunādi.

Metrical Text:—The group is possessed of the efficacy of reducing the deranged Kapham and fat and proves efficacious in cases of cephalaegia, Gulma and internal abscesses.

The Viratarvādi Group:—The drugs known as Virataru, the two kinds of Sahachara, Darbha, Vrikshādani, Gundra, Nala, Kusha, Kāsha, Ashmabhedaka, Agnimahtha, Moratā Vasuka, Vasira, Bhalluka, Kuruntaka, Indivara, Kapotavankā, and Shvadanstrā enter into the composition of the group known as the Viratarvādi.

Metrical Text:—The group subdues all disorders incidental to the deranged state of Vāta and
proves curative in Ashmari, Sharkara, Mutrakrichra, Mutraghata and urinary troubles.

The Salasaradi Group:—The group of medicinal drugs, known as the Salasaradi, consists of Salasara, Ajakarna, Khadira, Kadara, Kalkandha, Kramuka, Bhurjja, Meshashringi, Tinisha, Chandana, Kuchandana, Shinshapa, Shishira, Asana, Dhava, Arjuna, Tala, Shaka, Naktamala, Putikasashakarna, Aguru and Khaliyaka.

Metrical Texts:—The group of the drugs, known as the Salasaradi Gana, destroys the germ of Kushtha, absorbs the deranged fat and Kapham and proves beneficial in morbid discharges from the urethra (Meha), chlorosis or jaundice (Pandu).

The Rodhradi Group:—The group of medicinal drugs known as the Rodhradi consists of Rodhra, Savarodhra, Palisha Kutannata, Ashoka, Phanjri, Katphala, Elabaluka, Sallaki, Jingini, Kadamva, Salá and Kadali.

Metrical Texts:—The group is antidotal to the deranged Kapham and fat, is astringent in its properties, removes vaginal and uterine disorders, neutralises the effects of poison (anti toxic) and acts as a styptic and purifying agent in a case of ulcer and arrests all secretions and excretions of the body.

The Arka Group:—The drugs known as the Arka, Alarka, the two kinds of Karanja,
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Nágadanti, Mayuraka, Bhárgi, Rásná, Indrapushpi, Kshudrashvetá Maháshvetá, Vrishchikáli, Alavaná and Tápasha-Vriksha, enter into the composition of the group known as the Arkádi Gana.

**Metrical Texts:**—The group known as the Arkádi destroys Kapham, fat, and the effects of poison. It acts as a vermifuge and a specific aseptic agent in the case of an ulcer and proves curative in diseases of the skin.

**The Surasádi Group:**—The drugs known as Surasá, white Surasá, Pánjihaka, Arjaka, Bhustrína, Sugandhaka, Sumukha, Kálamála, Káshamarda, Kshavaka, Kharpushpá, Vidanga, Katphala, Surasi, Nirgundi, Kuláhala, Indurakarniká, Phanjí, Práchivala, Kákamáchi and Vishamushtika form the group known as the Surasádi Gana.

**Metrical Texts:**—The group acts as a vermifuge and is an aseptic agent. It subdues the deranged Kapham and proves beneficial in catarrh, non-relish for food, asthma and cough.

**The Mushkakádi Group:**—The group of medicinal drugs known as the Mushkakádi consists of Mushkaka, Palásha, Dhava, Chitraka, Madana, Shinshapá, Vajra-Vriksha and Triphalá.

**Metrical Text:**—The present group is possessed of the therapeutic virtue of destroying fat and
removing the defects of semen. Meha, piles, jaundice, chlorosis, gravels and urinary calculi in the bladder are the diseases which yield to its curative efficacy.

**The Pippalyādi Group**—The group of medicinal drugs known as the Pippalyādi consists of Pippali, Pippali mulam, Chavya, Chitraka, Shringavera, Maricha, Hasti-Pippali, Harenuka, Elá, Ajamodá, Indrayava, Páthá, Jiraka, Sarshapa, Mahá-Nimva-Phala, Hingu, Bhárgi, Madhurasá, Ativishá, Vachá, Vidanga and Katurohini.

**Metrical Text**—The present group acts as a good appetiser and is an absorbant of intestinal mucous and unassimilated lymph chyle. The range of its therapeutical application includes catarrh, deranged Kapham and Vátam, non-relish for food, abdominal glands, colic and gastralgia.


**Metrical Text**—The therapeutic virtue of the group consists in subduing the action of Váyu and
Kapham and in neutralising the effects of poison. It is a cosmetic and arrests the eruption of pimples and other vegetations on the skin such as rash, urticaria etc. and checks the itching sensation incidental thereto.

The Vachādi and Haridrádi Groups:—
The groups known as the Vachādi and Haridrádi Ganas, respectively consist of Vachā, Mustā, Ativishā, Abhayā, Bhadrādāru, Nágakeshara (Vachādi), Haridrá, Dāruharidrá, Kalashi, Kutaja seeds and Madhuka (Haridrádi).

Metrical Text:—These two groups are the purifiers of breast milk and specifically act as the assimilators of the deranged humours of the body, their curative properties being markedly witnessed in cases of mucous dysentery (Āmātisāra).

The Shyāmādi Group:—The drugs known as Shyāmā, Mahā-Shyāmā, Trivrit, Danti, Shankhini, Tilvaka, Kampillaka, Ramyaka, Kramuka, Putrashroni, Gavākshi, Rājavriksha, the two kinds of Karanja, Guduchi, Saptalā, Chhagalāntri, Sudhā and Suvarnakhiri, form the group known as the Shyāmādi Gana.

Metrical Text:—This group is possessed of the therapeutic virtue of curing abdominal glands and acts as an anti-toxic. It proves beneficial in Anāha
epistasis), abdominal dropsy and diarrhoea and is one of the most reliable purgatives in cases of obstinate constipation of the bowels with suppression of urine and distention of the abdomen (Udvarta).

The Vrihatyadi Group:—The drugs known as Vrihati, Kantakarikā, Kutajapala, Pāthā and Madhuka combinedly form the group known as the Vrihatyadi Gana.

Metrical Text:—The group is a good digestant or assimilator of the deranged humours. It subdues the deranged Vātā, Pitta and Kapham and proves efficacious in cases of nausea, water-brash, dysuria and non-relish for food.

The Patoladi Group:—The drugs known as Patola, Chandana, Kuchandana, Murvā, Guduchi, Pāthā, and Katurohini form the group known as the Patolādi Gana.

Metrical Text:—The group is a febrifuge and anti-toxic, and its therapeutic action consists in destroying the action of the deranged Pittam and Kapham. It restores the natural relish of the patient for food, removes vomiting, and proves beneficial in ulcers, and itching erythematous eruptions.

The Kākolyadi Group:—The drugs known as Kākoli-Kshira-Kākoli, Jivaka, Rishabhaka, Mudgaparni, Māshaparni, Medā, Mahāmedā, Chhinna-ruhā,
Karkata-Shringi, Tugákhshiri, Padmaka, Prapaundarika, Riddhi, Vriddhi, Mrídviká, Jivanti and Madhuka, combinedly form the group known as the Kákolyádi Gana.

**Metrical Text** :—The group of medicinal drugs under discussion subdues the action of the deranged Pittam, blood and Váyu. It increases the quantity of milk in the breast (galactagogue) and favours the accumulation of phlegm (Kapham) in the body. It is a restorative and an elixir and is endued with the therapeutic virtue of augmenting the virile potency of a man.

**The Ushakádi Group** :—The medicinal drugs and substances known as Ushaka (alkaline earth) Sáindhava salt, Shilájatu, the two kinds of Kásisa, Hingu and Tüttthaka enter into the composition of the group known as the Ushakádi Gana.

**Metrical Text** :—It destroys kapham (mucous), absorbs the fat of the body and proves curative in cases of stone or gravel in the bladder (urinary calculi), dysuria and abdominal glands (Gulma).

**The Sárivádi Group** :—The drugs known as Sárivá, Madhuka, Chandana, Kuchandana, Padmaka, Kászmari phala, Madhuka-pushpa and Ushira, combinedly form the group known as the Sárivádi Gana.

**Metrical Text** :—The group under discussion allays thirst and proves curative in a case of hæmoptysis.
Its therapeutic virtue consists in curbing an attack of bilious (Pitája) fever and in specifically alleviating the burning sensation (Dáha) of the body.

The Anjanádi Group:—The group known as the Anjanádi Gana consists of Anjana, Rasánjana, Nágapushpa, Priyangu, Nálopta, Nálada, Nalina, Kesára and Madhuka.

Metrical Texts:—An attack of hæmoptysis readily yields to the curative virtue of the group under discussion. It is anti-toxic in its character and allays the internal burning sensation of the body.

The Parushakádi Group:—The group known as the Parushakádi Gana consists of Parushaka, Drákshá, Kat-phala, Dádima, Rájádana, Kataka-phala Sháka-phala and Triphalá.

Metrical Text:—It subdues the deranged Váyu, allays thirst, acts as a cordial, increases one's relish for food, and cures the diseased or abnormal components of urine or its defects.

The Priyangvádi Group:—The group of medicinal drugs known as the Priyangvádi Gana consists of Priyangu, Samangá, Dhátaki, Nágá-pushpa, Chandana, Kuchandana, Mocharasa, Rasánjana, Kumbhika, Srothnána, Padma-keshára, Jojanvalli, and Dirghamulá.

The Amvasthádi Group:—Drugs known as Amvasthá, Dhátaki flowers, Samangá, Katvanga,
Madhuka, Vilva-peshikā, Rodhra, Sāvara-Rodhra, Palāsha, Nandi-Vriksha and Padma keshara, enter into the composition of the group known as the Amvasthādi Gana.

Metrical Text:—The two medicinal recipes or groups prove beneficial in a case of deranged Pitta, favour the healing of ulcers, bring about the adhesion of fractured bones and prove curative in cases of dysentery where the stools are found to consist of lumps of thick and matured mucous (Pakvātisāra.)

The Nyāgrodhādi Group:—The drugs known as Nyāgrodha, Audumvara, Ashvattha, Plaksha, Madhuka, Kapitana, Kakubha, Āmrā, Koshāmra, Chorakapatra, the two sorts of Jamvu, Piyāla, Madhuka (Maula), Rohini, Vanjula, Kadamva, Vadari, Tinduki, Sallaki, Rodhra, Sāvara-Rodhra, Bhallātaka, Palāsha, and Nandi-Vriksha, combinedly form the group known as the Nyāgodhrádi Gana.

Metrical Texts:—This group proves beneficial in cases of ulcer, cures all disorders of the uterus and vagina, favours the adhesion of fractured bones and all sorts of secretions of the body in addition to its astringent properties (Sangráhī) and proves curative in a case of haemoptysis. It is an anti-fat, and assuages the burning sensation of the body.
The Guduchyadi Group:—The drugs known as Guduchi, Nimva, Kustumvuru, Chandana, and Padmaka, combinedly form the group known as the Guduchyadi Gana.

Metrical Text:—It is a good appetiser, and acts as a general febrifuge and successfully combats such symptoms as nausea, want of relish for food, vomiting, thirst and burning sensation of the body.

The Utpaladi Group:—The drugs known as Utpala, Raktotpala, Kumuda Saugondhika, Kuvalaya, Pundarika and Madhuka constitute the group known as the Utpaládi Gana.

Metrical Texts:—This group is possessed of the therapeutic virtue of allaying thirst and corrects the deranged Pittam and the vitiated blood. It assuages the burning sensation of the body and proves curative in cases of vomiting, in Hridroga (Angina pectoris), in syncope, in hæmoptysis and in cases of poisoning as well.

The Mushtadi Group:—The group of drugs known as Mushtádi Gana is composed of Mustá, Haridrá, Dáru-Haridrá, Haritaki, Ámlaki, Vibhitaka, Kushtha, Haimavati, Váchá, Páthá, Katurohini, Shárngashta, Ativishá, Dravidí, Bhallátaka and Chitraka.
**Metrical Text** :- The group under discussion destroys the deranged Shleshma, cures uterine and vaginal disorders, purifies the breast milk of a mother, and acts as a good digestant (Pachana).

**The Triphala Group** :- The drugs known Haritaki, Amlaki and Vibhitaka, constitute the group known as the Triphala Gana.

**Metrical Text** :- The present group destroys the action of the deranged Vayu, Kapham and Pittam and proves curative in Meha, and in diseases of the skin (Kushtham). It is a good appetiser, improves the eyesight and proves beneficial in chronic intermittent fever (Vishama-jvara).

**The Trikatu Group** :- The Trikatu group consists of Pippali, Maricha and Shringavera.

**Metrical Text** :- It destroys fat and Kapham, proves curative in cutaneous affections, leprosy (Kushtha), and morbid discharges from the urethra, and is possessed of the virtue of curing abdominal glands, catarrh, dullness of the appetite and indigestion.

**The Amlakyadi Group** :- The group known as the Amlakyadi Gana consists of Amlaki, Haritaki, Pippali and Chitraka.

**Metrical Text** :- The present group of medicinal drugs acts as a general febrifuge and may be used
with advantage in fevers of whatsoever type. Moreover, it is an aphrodisiac and acts as a general tonic or restorative and appetiser, destroying the deranged Kapham and improving the eyesight.

**The Trapvádi Group:**—The group known as the Trapvádi Gana consists of Trapu, Sisa, Támra, Rajata, Krishna-Lauha, Suvarna and Lohamala.

**Metrical Text:**—The present group is regarded as a good vermifuge and possessed of the virtue of neutralising the effects of chemical poison originated through incompatible combinations. Its therapeutic range covers jaundice, chlorosis, Meha (morbid secretions from the urethra), Hridroga (heart disease), thirst and maladies incidental to the effects of poison.

**The Lákshádi Group:**—The drugs known as the Lákshá, Árevata, Kutaja, Ashvamára, Katphalam, Haridrá, Dáru-Haridrá, Nimva, Saptachhhada, Málatí, and Tráyamáná form the Lákshádi Gana.

**Metrical Text:**—This consists of astringent, bitter and sweet taste (Rasa) and acts as a good vermifuge and a purifying (aseptic) agent in cases of bad, malignant or indolent ulcers. Diseases due to the deranged Kapham and Pittam prove amenable to its curative properties, which extend to cases of cutaneous affections (Kushtham) as well. Now we shall describe
the five groups of medicinal roots (Mulam), each consisting of similar number of components.

**The Svalpa Panchamulam Group:**
The group known as the minor group of five roots (Svalpa-Pancha-Mula) consists of the roots of medicinal plants known as the Trikantaka, the two species of Vrihati, Prithakarni, and Vidārigandha.

**Metrical Texts:**—The compound possesses a taste blended of astringent, bitter and sweet. It is a tonic and aphrodisiac, subdues the deranged Vāyu and proves soothing to the deranged Pittam.

**The Mahat Panchamula Group:**—
The one known as the great or the major group of five medicinal roots (Mahat-Pancha-Mula) consists of the roots of such trees as Vilva, Agnimaṇtha, Tuntuka, Patāla and Kāshmari.

**Metrical Texts:**—It is bitter in taste and subdues the deranged Kapham and Vātam. It is light (easily digestible) and appetising, and acquires a subsequent sweet taste in its reaction (Anurasa).

**The Dashamula Group:**—The two preceding groups in combination form the one technically known as the Dasha-Mulam (the ten roots), which is possessed of the virtue of destroying the deranged Vāta, Pittam and Kapham. It proves beneficial in cases of asthma and difficult respiration. It acts as a good
digestant in respect of undigested lymph chyle, etc and is used with satisfactory results in all types of fever.

The Valli-Panchamulam Group:
The group consisting of the roots of the five medicinal creepers known as Vidári, Sarivá, Rajani, Guduchi and Aja-Shringi, is called the Valli-Panchamulam.

The Pancha-kantakam Group:
Similarly, the group consisting of the five medicinal (thorny) shrubs known as Karamradda, Trikantaka, Sairiyaka, Shatávari, and Gridhranakhi, is called the Pancha-Kantaka.

Metrical Texts:
The two preceding groups prove curative in Hæmoptysis and in all the three types of anasarca or œdema (Shopha). Moreover, it has the incontestable virtue of arresting all sorts of urethral discharges and is a potent remedy in all cases of seminal disorders.

The Pancha-Trina Group:
The group consisting of the five medicinal herbs (of the grass species) and known as Kusha, Kásha, Nala, Darbha, Kándekshuka, is called the Pancha-Trina.

Metrical Texts:
Cases of Hæmoptysis, renal defects or of urinary diseases are found to speedily yield to the curative efficacy of the compound internally administered through the medium of cow’s milk.

Metrical Texts:
The first two of the afore-
said groups of Panchamulas (viz., the Svalpa and the Vrihat Panchamulas) are possessed of the virtue of destroying the deranged Váta, while the one standing in the bottom of the list (Trina-Panchamula) is endued with the property of killing the deranged Pittam. Those standing third and fourth in order of enumeration (the Valli and Kantaka Panchamulas) subdue the deranged Kapham.

The groups of medicinal drugs and roots have thus been briefly described, which will be more elaborately dealt with later on in the chapter on Therapeutics.

An intelligent physician should prepare plasters, decoctions, medicated oils, Ghritas (medicated clarified butter) or potions, according to the exigencies of each individual case.* The groups enumerated above should be therapeutically used according to the nature of the deranged humours involved in each individual case. Only two, three or four drugs of the same medicinal group, or a similar number of drugs chosen from the different groups, or a group of medicinal drugs in its entirety, or in combination with another, should be used according to the indications of any particular case, as the physician, in his discretion, would determine.

* Additional Text : These drugs may be duly culled in all seasons of the year, and should be stored in a room protected from smoke, blasts of cold, wind and rain.

Thus ends the thirty-eighth Chapter of the Sutrasthánam in the Sushruta Samhita, which deals with the classification of drugs according to their therapeutical use.
CHAPTER XXXIX.

Now we shall discourse on the Chapter which treats of medicinal drugs possessed of cleansing (cathartic) or soothing effects (Samshodhana-Samshamaniya-madhyaayam).

Emetic Drugs:—The drugs known as Madana fruits, Kutaja, Jirnataka, Ikshvāku, Dhamāgarba, Krita-vedhana, Sarshapa, Vidanga, Pippali, Karanjaka, Prapunnāda, Kovidāra, Koryudāra, Arishta, Ashvagandhā, Vidula, Vindhujivaka, Shvetā, Shanapushpi, Vimvi, Vachā, Mrigervāru and Chitrā, etc. are possessed of emetic properties. Out of these the fruits (seeds) of plants preceding Kovidāra in the abovesaid list (from the Madana fruits to those of the Prapunnāda) and the roots of plants from Kovidāra to its close, should be used.

Purgative Drugs:—The trees, plants, herbs and creepers, etc. known as Trivritā, Shyāmā, Danti, Dravanti, Saptalā, Shankhini, Vishānikā, Gavāskhi, Chhagalāntri, Snuk, Suvarnakshirī, Chitraka, Kinihi, Kusha, Kāsha, Tilvaka, Kampillaka, Rémyaka, Pātalā, Puga, Haritaki, Ámalaka, Bibhitaka, Nilihi, Chaturangula, Eranda, Putika, Mahāvriksha, Saptachchhada, Arka, and Jyotishmati, etc. are possessed of purgative properties. Of these the roots of plants, which precede
Tilvaka in the above list, should be used for purgative purposes. The barks of trees from Tilvaka to Pátalá in the same list should be used for similar purposes. The pollens or dust of the Kampilla seeds, and of the fruits of trees from Eranda to Puga, the leaves of Putika and Áragvadha, and the milky exudations of the remaining members of the list, should be similarly used.

The expressed juice of Koshátaki, Saptalá, Shankhini, Devadáli, or Kárvelliká is both emetic and purgative.

The Errhines:—The following drugs, viz. Pippali, Vidanga, Apámárga, Shigru, Siddhárthaka, Shirisha, Maricha, Karavira, Vimvi, Girikarnika, Kinihi, Vachá, Jyotishmati, Kana, Arka, Alarka, Lashuna, Ativishá, Shriningavera, Talisha, Tamála, Surasá, Arjaka, Ingudi, Meshashringi, Mátulungi, Murangí, Pilu, Játi, Shaála, Tála, Madhuka (Maula), Lákhá and Hingu, together with such substances as rock-salt, spirits, cow's urine and watery exudation of cow dung should be regarded as errhines (Shirovirechanam). The fruits (seeds) of plants from Pippali to Maricha enumerated in the above-said list, the roots of plants commencing with Karavira and ending with Arka, the bulbs of those whose names precede Talisha in the same list, the leaves of those commencing with Talisha and ending with the Arjaka therein, the barks of Ingudi and Meshashringi, the flowers of Mátulungi, Murungi, Pilu and Játi, the essence (Sára) of Shaála, Tála
and Maduhka (Maul) trees, the gummy exudation (Niryása) of Hingu plants and Lakshá trees, as well as salts which are but the saline modifications of earth, Madya (wines) which are but the modified products of Ásava (fermented liquors), and secretions of cowdung, or cow’s urine which should be understood to mean the animal excrements, in their crude or natural state, should be used where errhines are indicated.

Samshamaniya Drugs:—Now we shall enumerate the names of drugs and substances which soothe or pacify the deranged humours or principles of the body involved in any particular disease (Sanskhamanam).

Vata-Samshamana-Varga:—The following drugs, viz. Bhadráru, Kushta, Haridrá, Varuna, Meshshringi, Valá, Ativalá, Artagala, Kachhurá, Sallaki, Kuverákshi, Virataru, Sahachara, Agnímantha, Vatsádani, Eranda, Ashmabhedaka, Alarka, Arka, Shatávari, Punarnavá, Vasuka, Vasira. Kánchanaaka, Bhárgi, Kárpa, Vrishchiáali, Pattura, Vadara, Yava, Kola, Kulattha, etc. and the drugs forming the group of Vidúrgandhádi-Gana, as well as those belonging to the first two groups of Panchamula (Mahat and Svalpa), are possessed of the general virtue of soothing (restoring to its normal state) the deranged (Váyu) Váta.

Pitta-Samshamana-Varga:—The drugs known as Chandana, Kuchandana, Hrivera, Ushira,
Manjishthá, Payasyá, Vidári, Shatávari, Gundry, Shaivala, Kahlára, Kumuda, Utpala, Kadáli, Kandáli, Durvá, Murvá, etc. and the drugs forming the groups of Kákyádi, Sárivádi, Anjanádi, Utpaládi, Nyágrodhádi, and Trína-Panchamula groups generally prove soothing to the deranged Pittam.

**Shleshmā - Samshamana - Varga** :-

The drugs known as Káleyaka, Aguru, Tilaparni, Kushtha, Haridrá, Shitáshiva, Shatapushpá, Saralá, Rásná, Prakiryyá, Udakiryyá, Íngudi, Sumanáh, Kákádani, Lángalaki, Hastikarna, Munjástaka, Lámagjaka, etc. and the drugs belonging to the groups of Vallí and Kantak Panchamulas and those composing the Píppalyádi-Varga, Brihatyádi-Varga, Mushkádi-Varga, Váchádi, Surásádi and Áragvadhádi groups are generally possessed of the efficacy of restoring the deranged Shleshmá to its natural state.

The choice of a medicine whether for cleansing or soothing purposes should be determined by the consideration of the strength (intensity) of the disease, and the stamina and the digestive function of the patient under treatment. A medicine (of a soothing or Samshamanam efficacy), which is stronger than the disease it has been applied to combat with, not only checks it with its own soothing virtue but usually gives rise to a fresh malady, on account of its surplus energy being not requisitioned into
action, nor its being used up by the weakened and conquered original distemper. It is thus stored up in the organism for the working of fresh mischief. A medicine, which proves stronger than the digestive function of a patient, impairs his digestion, or takes an unusually greater length of time to be digested and assimilated into his organism. A medicine, which is stronger than the physical stamina of a patient, may bring on a feeling of physical languor, fits of fainting, loss of consciousness, delirium, etc. Similarly, an overdose of a cleansing (cathartic) medicine may work similar mischief. On the other hand, medicines of inadequate potencies, and accordingly unequal to the strength of a disease, as well as medicines in inadequate doses fail to produce any tangible effect. Hence medicines of adequate potencies should be alone administered in adequate doses.

**Authoritative verses on the subject:**—A prudent physician should prescribe a mild purgative for a patient enfeebled by the action of the deranged and accumulated bodily humours and laid up with a disease in which such a cleansing (cathartic) or emetic remedy is indicated. Thc same rule should hold good in the case of a patient enfeebled through causes other than physical distempers, and whose bowels are easily moved, and in whom the fecal matter, etc. are found to have been dislodged.
from their natural seats or locations. Decoctions
(including extracts and cold infusions of medicinal
herbs) in doses of four Palas weights, and pastes and
powders in doses of two Palas weights, should be
prescribed in a disease of ordinary intensity. Corrective
medicines (Purgatives and Emetics) may be safely
exhibited even in a weak patient with loose or uncon-
stipated bowels, if they are found to be stuffed with a
spontaneous accumulation of fecal matter (Dosha) etc.
inspite of such looseness or easy motion.

Thus ends the thirty-ninth Chapter of the Sutrasthānam in the Sushruta
Samhitā, which treats of drugs of cleansing (corrective) and soothing
properties.
CHAPTER XL.

Now we shall discourse on the Chapter, which treats of drugs and their flavours, virtues, potencies and chemical actions. \textit{(Dravya-Rasa-Guna-Virya-Vipaka-Vijnaniya-madhya-yam)}.

Certain professors of the Ayurveda hold that a medicinal drug or substance is pre-eminently the most important matter with which the science of medicine is concerned. First because, a drug, as a substance, has a definite and continuous existence, which its attributes (such as, taste, etc.) do not possess. As for example the tastes, etc., which characterise a fruit in its unripe stage, are not perceived in its ripe or matured condition. Secondly because, a drug is real (Nitya) and invariable, whereas its attributes are but transitory and accidental at the best. As for instance the real character of a drug cannot be destroyed whether it be powdered or pasted. Thirdly because, a drug or a substance never can lose its own generic character. As for example, a drug possessed of attributes peculiar to the fundamental matter, earth, can never be transformed into one of watery attributes—a truth which does not hold good of its attributes. Fourthly because, a drug or a substance is an object of all the five senses of a man, whereas its attributes of tastes, etc.
are respectively accommodated to the faculty of special sense organs. Fifthly because, a drug or a substance is the receptacle of the attributes of taste, etc., while the latter are the things contained. Sixthly because, a dictum of medicine can be commenced with the name of a drug or substance. As for example, it is quite natural to say that the drugs such as Vidāri Gandhā, etc., should be pressed and boiled. But it sounds preposterous to utter that the sweet taste should be pulverised and boiled. Seventhly because, the greater importance of a drug or substance has been laid down in the Shastras of medicines inasmuch as medical recipes have been described by the names of their component ingredients such as Mātulunga, Agnimantha, etc., and not described as the tastes of Mātulunga, Agnimantha etc. Eighthly because, the attributes of tastes, etc., depend upon the drugs and substances (of which they are the attributes) for their progressive maturity. As for example, the taste of a drug or substance varies with its growth and is different in its raw (immature) and ripe (mature) conditions. (Hence a drug is more important than its attributes of taste, etc.) Ninthly because, a drug may prove curative through the efficacy of one of its component parts or principles as in the case of Mahāvriksha, the milky exudations of which are possessed of therapeutical virtues, which cannot be said of its taste.

Hence a drug or a substance (Dravyam) is the most
important factor (which the science of medicine has got to deal with). A substance or drug necessarily implies action and attributes with which it is intimately connected and of which it is the primary cause, or to put it more explicitly, these attributes have an inseparable inherence in and are intimately associated with the substance by way of cause and effect (Samaváyi-Káranam).

Others, on the contrary, who do not endorse the above opinion, accord the highest importance to the attribute of taste (Rasa) of a drug or substance. Firstly because, it is so laid down in the Ágamas (Vedas), which include the science of medicine (Áyurveda Shástram) as well, and inasmuch as such statements as “Food is primarily contingent on its tastes and on food depends life” occur therein. Secondly because, the essential importance of taste may be inferred from such injunctions or instructions of the professors of medicine as, “sweet, acid and saline tastes soothe or pacify the deranged bodily Váyu.” Thirdly because, a drug or a substance is named after the nature of its taste, as a sweet drug, a saline substance, etc. Fourthly because, its primary importance is based on the inspired utterances of the holy sages (Rishis) which form the sacred hymns and verses of the Vedas, and such passages as “sweets to be collected for the purposes of a religious sacrifice,” etc., are to be
found in them. Hence taste is the most important factor in the science of medicine and forms the primary attribute of a medicinal drug. But, later on, we shall have occasion to speak of that.

Certain authorities however, (who reject the two aforesaid theories), hold the potency (Viryam) of a drug to be the most important factor in medicine inasmuch as its therapeutic action, whether purgative, emetic, or both, or cathartic, or pacifying, or astringent, appetising, pressing (drawing to a definite head) or liqueficient, or constructive, tonic (vitalising) or aphrodisiac, or inflammatory, absorbing, caustic, or bursting, or intoxicating, soporific, killing or antitoxic, depends upon its potency. The potency of a drug is either cooling or heat-making owing to the two-fold (hot and cool) nature of the temperament of the world. According to several authorities the potency of a medicinal drug may be classed as either hot or cool, emollient or dry, expansive or slimy, mild or keen, so as to embrace the eight different attributes in all. These potencies of medicinal drugs serve their respective functions by overpowering their (drugs') tastes with their specific strength (intensity) and virtues. As for example the decoction of the roots belonging to the group of the Mahá-Panchamulam, though possessed of an astringent taste which is subsequently transformed into a bitter
one, acquires the virtue of pacifying the deranged Vāyu out of its heat-making potency. Similarly, the pulse known as Kulattha though possessed of an astringent taste, and onion though endued with a pungent one, respectively soothe the same deranged humour of the body through the oleaginous character of their potencies. On the other hand, the expressed juice of sugar-cane, though possessed of a sweet taste, tends to augment or aggravate the deranged Vāyu owing to its cooling potency. The drug Pippali, though a pungent substance in itself, proves soothing to the deranged Pittam, owing to its mild and cooling potency. Similarly, an Ámalakam fruit, though acid in taste, and Saindhava, though saline, respectively tend to pacify the deranged Pittam. The drug Kákamáchi, though of a bitter taste, and fish, though sweet, respectively aggravate the Pittam, owing to their thermogenetic potency. Similarly, Mulakam (Radish), though pungent, increases the Kapham of the body, on account of its emollient potency; and Kapittham, though acid, soothes; and honey, though sweet, tends to pacify the deranged Kapham owing to the dry character of its potency. The aforesaid instances have been cited by way of illustration.

**Authoritative verses on the subject**—Tastes, which are possessed of dry, light or
expansive potencies, fail to pacify the deranged Vāyu, though otherwise they may prove soothing to that deranged humour. Similarly, tastes, which are ordinarily reckoned as pacifiers of the deranged Pittā, fail to produce that effect in the event of their being endued with a keen, light or heat-making potency. Likewise, tastes, which are commonly found to soothe the deranged Kaphā, tend to aggravate it in the event of their being possessed of potencies which are respectively heavy, cool and emollient in their character.* Hence the potency of a drug is the most important factor in the science of medicine.

But certain authorities dissent from the above-said view, and attach the highest importance to the process of digestive (chemical) reaction (Vipāka) for the reason, that all ingested food, properly or improperly digested in the stomach, proves wholesome or otherwise to the body. Certain authorities on the subject hold that digestion develops all the several tastes.†

According to others, tastes such as, sweet, pungent and acid, follow upon the completion of the process of digestion (by way of reactionary result or transformation).

* Flavours such as, sweet, acid and saline, subdue the deranged Vāyu. Tastes such as, sweet, bitter and astringent are antibilious in their efficacy, while those, which are pungent, bitter and astringent, are antiphlegmagogic in their virtues.

† The process of digestion is followed by a reactionary taste, which may be either sweet, pungent, acid, astringent, bitter or saline.
It is needless to say that the hypothesis is based on erroneous data, inasmuch as the fact of acid digestion (acid taste developed at the close of the digestive process or reactionary acidity) is contrary both to the properties of matter and the collective experience of the race embodied in the dictum of the Shastras, and which should be rather ascribed to the acid taste of the Pittam remaining in an undigested or unassimilated condition owing to imperfect gastric digestion. The probability of a saline digestion (a reactionary saline taste following upon the close of the digestive process) should be necessarily presumed, if the fact of an acid digestion were to be upheld as a tested and corroborated principle of medical science. The hypothesis of an acid digestion (reactionary acidity) does not preclude the possibility of a similar saline one owing to the participation of the natural taste (saline) of the bodily Kapham in the process of digestion, as is said of Pittam in the preceding instance. Hence the theory that only three tastes, such as sweet, acid, and pungent are developed through digestive reaction, appears to be untenable, and naturally points to the doctrine that a sweet taste (partaken of by a man) brings on a sweet tasted digestion; an acid taste (reactionary acidity) begets acid digestion, and so on, a taste of whatsoever kind partaken of by a man imparting its specific character to his digestive reaction.
Those, who adhere to the last named doctrine, endeavour to substantiate it by the following analogy, and argue that as milk kept boiling in a basin placed over a fire does not change its natural sweetness (with the change of its temperature), as cereals such as Shali-rice, wheat, barley, Mudga, etc. sown broadcast in the ground do not part with their inherent, generic attributes (through their successive stages of development), so the tastes of food-stuff do not alter even after being boiled in the heat of the digestive organs.

Others, on the contrary, assert that weak tastes are naturally merged in the strong ones in the course of digestion. And since the consensus of expert opinions on the subject serves only to increase the confusion on account of their differences and bigoted antipathy, we shall judiciously refrain from indulging in idle theories on the subject.

Only two kinds of digestion (digestive reactionary tastes) have been noticed in the Shastras, such as, the sweet and the pungent, the first being heavy and the second light. The specific properties of the five essential material principles of the world such as, the earth, water, fire, air and sky may be roughly described as heaviness and lightness, the two attributes which appertain to their fundamental natures. Heaviness forms the characteristic attribute of earth
and water, while lightness stands for the essential properties of fire, air and sky. Hence the digestion of all food-stuff may be described as either heavy (Guru) or light (Laghu).

Authoritative verses on the subject:—Of substances under the process of digestion, those, which are characterised by attributes, specifically belonging to earth and water, are called substances of sweet (heavy) digestion; while those which are permeated with the specific properties of air, fire and sky are called substances of pungent (light) digestion (easily digestible articles of food). We have fully stated the text of the controversy as regards the primary importance of drugs and their tastes, virtues, potencies and digestive reactions, as well as the views of those who build their theories on the separate or exclusive importance of any of the five afore-said factors. The wise and the erudite set an equal importance to each of them, and ascribe the curative efficacy of a medicine to the co-operation of all these five factors. A drug of a substance sometimes destroys or originates a deranged condition of the humours through the dynamical action of its native or inherent properties, sometimes in virtue of its specific potency and sometimes by natural taste or digestive (chemical) reaction. Digestive reaction is impossible without drug potency. There is
no potency without a taste, and taste without a drug or substance is an absurdity. Hence a substance (vegetable or otherwise) is the greatest of them all. A taste and a substance are correlative categories from the time of their origin, like a body and an embodied self in the plane of organic existence. Since an attribute \textit{per se} can not be possessed of another attribute, the eight kinds of potency (properties) can only appertain to a substance and not to a taste, which is an attribute in itself. Substances are digested in an organic body and not the six tastes simply for the reason of their being invisible and intangible in themselves. Hence a substance is the greatest of all the aforesaid five factors (of substance, taste, virtues, etc.) and the attributes lie inherent in the substance.

Unscrutable and unthinkable are the virtues of drugs (medicines), which are above all rules of syllogism; and hence drugs (medicines), which have been observed to be efficacious from time immemorial, as well as those laid down in the scriptures on medicines, should alone be used in the course of a medical treatment. A learned physician should think it a sacrilege to logically dispute the efficacy of a medicine of tested virtue, and which has been adopted after generations of careful observation and is instinctively pronounced by men as a beneficial remedy.
No amount of logic will alter the nature of things, nor persuade the drugs of the Amboshtha group to exercise a purgative virtue. Hence an intelligent physician should adhere to the officinal recipes given in the books on medicine, and not introduce innovations, however logical or probable, into the realms of applied or practical Therapeutics.

Thus ends the fortieth Chapter of the Sutrasthānam in the Sushruta Samhitā, which deals with drugs and their flavours, virtues, and digestive (chemical) transformation.
CHAPTER XL I.

Now we shall discourse on the Chapter, which treats of the specific properties of drugs (Dravya-Vishesha-Vijnaniya-madhyaayam).

The five fundamental principles* such as the earth (Kshithi), water (Ápa), fire (Teja), air (Marut) and Sky (Vyoma) enter into the composition of all substances in the world, and the predominance of any of them in a particular substance determines its character. Accordingly a thing is denominated as a substance of dominant earth principle, or one marked by a predominance of fire, air or ether.

Parthiva Drugs:—A thing or substance, which is thick, pithy, compact, dull, immobile, rough, heavy (hard to digest), strong smelling and largely has a sweet taste marked by a shade of astringent, is called a substance of dominant earth (Páthivam) matter. Such a thing increases the firmness, strength, hardness and rotundity of the human body, and is possessed of gravity (the virtue of moving the bowels).

Apyam Drugs:—Similarly, a thing or substance, which is cold, moist, glossy, devoid of keenness, takes time to be digested, is mobile, compact, soft,

* These may be translated as Solid, Liquid, Gas, Ether, and Etherion in the parlance of modern science.
slimy, sappy, and is largely endued with an acid, saline or sweet taste marked by a shade of astringent, is called a substance of dominant water (Apyam) principle. Such a thing soothes and imparts a glossy character to the body, keeps it moist, favours the adhesion of its parts, and increases its liquid contents.

Taijasam Drugs:—A thing or substance, which is heat-making, pungent and keen, subtle in its essence, permeates the minutest capillaries, and is dry, rough, light, and non-slimy in its character and has strong properties and a taste which is largely pungent marked by a shade of saline, is called a substance of the dominant principle of fire (Taijasam). Such a thing naturally evinces an up-coursing tendency in the body, produces a burning sensation in its inside, helps the process of digestion and spontaneous bursting (of abscesses), increases the temperature of the body, strengthens the eyesight, improves the complexion and imparts a healthful glow to it.

Vayaviyam Drugs:—A thing or substance, which is subtle in its essence, and is dry, rough, light, cold and non-slimy, increases tactual sensation and is endued with a largely astringent taste marked by a shade of bitter, is called a substance of the dominant principle of air (Vayaviyam). Such a thing removes the slimy character of the internal organism, produces light-
ness, dryness and emaciation of the body, and increases the speculative or contemplative faculty of the mind.

**Akashiyam Drugs:**—A thing or substance, which is smooth, unctuous, and is subtle in its nature, soft or pliant in its consistency, expansive (in the internal organism), porous, soundy and non slimy in its character without any definite taste, is called a substance of the dominant principle of sky (Akáshiyam). Such a substance produces softness, lightness and porosity of the body.

It may be inferred from the foregoing illustrations that there is not a single substance in the world but is endued with certain curative virtues. Drugs or substances, used in specific combinations and according to the indications of a disease under treatment, prove curative in virtue of their native virtues and potencies. The time, during which a drug or a medicine exerts its curative virtues, is called its Kála or the period of action. That which immediately results from the use or application of a medicinal remedy is called its Karma or physiological action. The principle, in virtue of which the action is performed, is called its potency or Viryam. That, in which the action takes place, is called its receptacle or Adhikaranam. The means by which it is effected is called its agency or Upáya, while that what it accomplishes is called its therapeutical effect or Phalam.

Of these the drugs of purgative virtue are possessed
of attributes which specifically belong to the earth and water. Earth and water are heavy, and naturally gravitate downward owing to their heaviness. Hence it is inferred that purgative drugs are largely endowed with the specific attributes of earth and water, in virtue of which they are more strongly attracted towards the centre of the earth (gravity). Drugs endowed with emetic properties are possessed of attributes which form the characteristics of fire and air. Fire and air are light, and naturally ascend upward owing to their lightness. Hence it is inferred, that emetic (Vamana) drugs are largely possessed of attributes, which are upcoursing in their nature. Drugs or substances endowed with both emetic and purgative virtues are characterised by attributes belonging to both the aforesaid elements (earth and fire).

Drugs, which soothe the deranged bodily humours, are permeated with qualities which specifically belong to the principle of the sky. Astringent (Sangrahaka) drugs are endowed with attributes, which specifically belong to the air owing to the drying character of the latter element. Appetising (Dipana) drugs are largely possessed of attributes which belong to the material principle of fire. Lekhana (Liquefacient) drugs or substances are endowed with attributes which belong to fire and air. Constructive or restorative (Vrithanam) drugs or substances are endowed with attributes which speci-
fically belong to earth and water. These inferences should be carefully remembered at the time of prescribing medicines.

**Authoritative verses on the subject:**—The deranged bodily Vāyu readily yields to the curative efficacies of drugs possessed of attributes, specifically belonging to the earth, fire and water, while the deranged Pittam is speedily soothed or restored to its normal state by drugs having attributes, specifically belonging to the earth, water and air. Similarly, the deranged Kapham is pacified by drugs possessed of attributes which characterise the sky, fire and air.

The bodily Vāyu is increased by the use of drugs possessed of attributes which specifically belong to the sky and air, while the Pittam is increased by the use of those which are largely endued with the specific attributes of fire. The bodily Kapham of the body is increased by the use of drugs which are largely endued with the specific attributes of the earth and water. Thus having ascertained the dominant attributes of drugs, a physician should use them for the pacification of two or more of the deranged humours of the body according to the exigencies of a case.

Of the eight-fold potencies of a drug, such as cooling, thermogenetic, oleaginous, heavy, parchifying, plastive, keen and slimy, keenness and thermogenetic
potency should be ascribed to the attributes of fire; cooling potency and that of engendering slime, to the predominance of the attributes of water in a drug or substance; oleaginousness, to the predominance of the attributes of the earth and water; plasti
c power, to the predominance of the attributes of water and the sky; parchifying potency, to the excess of the attributes of air; non-slimy potency (Vaishadyam), to the predominant
ance of the attributes of earth and air; and heavy and light digestion, to the same cause.

Of these, oiliness and thermogenetic potency prove curative in respect of the deranged Vāyu, while cooling power, plasti
 power, and that of engendering slime subdue the deranged Pittam. Keenness, parchifying and non-slimy potencies conquer the deranged Kapham. Substances, which are heavy in digestion, destroy the deranged Vāyu and Pittam, while those which are light in digestion (easily digestible substances) prove curative in respect of the deranged Kapham.

Of these, softness coldness and heat may be perceived by touch. The properties of sliminess and its opposite may be perceived by the eyes and touch. The properties of dryness and oiliness of a drug may be perceived with the eyes; keenness of a drug from the fact of its producing pain in the mouth; and [heat and cold, by the sensation of comfort (pleasure) or discomfort—A. Text] The fact of heavy (insufficient)
digestion should be inferred from the frequent passing of stool and urine, as well as from the expectoration of Kapham, while the contrary should be presumed from the constipation of the bowels, retention of urine and disorders of the abdominal Vāyu (flatulence, distension of the abdomen, etc.). A specific taste is detected in material principles of similar properties. As for example, a drug or a substance, which is heavy and endued with a sweet taste, should be deemed as belonging to the group of the earthy matter (largely possessed of attributes characterising earth-matter). Similarly, a substance, which is sweet and oily in its character, should be regarded as belonging to one in which the principle of water predominates.

**Authoritative verse on the subject:**—Properties, which characterise drugs and substances, may be as well found in a human organism, and the normal continuance, aggravation or diminution of the deranged humours is due to the action of the drugs (substances).

Thus ends the forty-first Chapter of the Sutrasthānam in the Sushruta Samhitā which treats of specific properties of drugs.
CHAPTER XLII.

Now we shall discourse on the Chapter, which treats of the specific properties of flavours (Rasa-Vishesha-Vijnaninya-madhyayam).

The properties of sky (Akaśa), air (Pavana), fire (Dahana), water (Toya) and earth (Bhumi) are sound touch, colour, taste and smell, each of the preceding elements possessing properties less by one than those of the one immediately succeeding it in the order of enumeration. *

[Since a matter is designated after the name of the preponderant natural element, which enters into its composition], taste is said to be a water-origined principle. All material elements are inseparably connected with one another, and there is a sort of interdependence among them, each one contributing to the continuance of the other and jointly entering, to a more or less extent, into the composition of all material substances. This water-origined flavour (Rasa), which becoming modified through its contact with the rest of the material

*To put it more explicitly the property of sound belongs to the sky (Akaśa). The properties of sound and touch appertain to the air (Vāyu). The properties of sound, touch and colour form the characteristics of Fire (Teja). Sound, touch, colour and taste form the specific properties of water (Toya). Sound, touch, colour, taste and smell mark the earth matter (Bhumi).
elements, admits of being divided into six different kinds, such as sweet, acid, saline, pungent, bitter and astringent. These, in their turn, being combined with one another, give rise to sixty-three different kinds. A sweet taste is largely endued with attributes which specifically appertain to the material principles of earth and water. An acid taste is pre-eminently possessed of attributes, which belong to the elementary principles of earth and fire. A saline taste is mostly endued with attributes which characterise the elements of water and fire. A pungent taste is largely possessed of attributes, which mark the elementary principles of air and fire. The specific attributes of air and sky predominate in a bitter taste. The specific properties of earth and air should be regarded as dominant in an astringent taste.

Tastes such as sweet, acid and saline are endued with the virtues of subduing Vāyu. Tastes such as sweet, bitter and astringent are possessed of the virtue of subduing the deranged Pittam. Tastes such as pungent, bitter and astringent tend to subdue the deranged Kapham.

The Vāyu is a self-origined principle in the human organism. The Pittam owes its origin to the bodily heat (Āgneya), while the origin of Kapham is ascribed to the presence of watery (Saumya) principle in the body. Tastes such as sweet, etc. are augmented by
causes in which they have their origin, and prove soothing or pacifying in respect of causes other than those which produce them.

According to certain authorities, there are only two kinds of tastes, owing to the two-fold (hot and cold) nature of the temperament of the world. Of these the tastes such as sweet, bitter and astringent are cold in their properties, while the pungent, acid and saline ones exercise fiery or heat making virtues. The tastes such as sweet, acid and saline are heavy and emollient in their character, while the pungent, astringent and bitter ones are dry and light. The watery (Saumya) tastes are cold. The fiery (Agneya) ones are hot.

Coldness, dryness, lightness, non-sliminess, suppression (of the urine or ordure) form the characteristic properties of the Vāyu. An astringent taste should be considered as possessed of the same properties as the Vāyu, and hence it (astringent taste) increases the coldness, dryness, lightness, non-sliminess and arrestiveness of the latter with its specific coolness, dryness, lightness, non-sliminess and arrestiveness.

Heat, pungency, dryness, lightness, and non-sliminess form the specific properties of the Pittam. A pungent taste, which is possessed of the same properties as the Pittam, respectively increases the heat, pungency,
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dryness, lightness and non-sliminess of the latter with
the help of similar properties of its own.

Sweetness, oiliness, heaviness, coldness and slimi-
ness form the specific properties of Kapham. A sweet
taste, which is possessed of the same properties as the
Kapham, respectively increases the sweetness, oiliness,
heaviness, coldness and sliminess of the latter with
the help of similar properties of its own. A pungent
taste is endowed with properties which are contrary
to those of the Kapham, hence the sweetness, oiliness,
heaviness, coldness and sliminess of the latter, are
respectively destroyed by the pungency, dryness,
lightness, heat and non-sliminess of the former. These
have been cited only by way of illustration.

**Characteristics of Tastes**—Now we
shall describe the characteristics of tastes. A
taste, which is pleasant, proves comfortable to, and
contributes to the life-preservation of a man, keeps
his mouth moist, and increases the quantity of bodily
Kapham, is called *sweet* (Madhura). A taste, which
produces tooth-edge and increased salivation, and
increases the relish for food, is called *acid* (Amla).
A taste, which imparts a greater relish to food, pro-
duces salivation and softness of a part, is called *saline*
(Lavana). A taste, which produces a burning sensation
at the tip of the tongue attended with a tingling of the
part and headache, and is instantaneously followed
by a running at the nose (fluent coryza) is called pungent (Katuka). A taste, which gives rise to a sort of sucking sensation at the throat, removes the slimy character of the cavity of the mouth, gives rise to the appearance of goose-flesh on the skin, and increases the relish for food, is called bitter (Tikta). A taste, which brings about the dryness of the mouth, numbs the palate, obstructs the throat, and gives rise to a drawing, pressing sensation in the region of the heart, is called astringent (Kashāya).

Specific virtues of tastes:—Now we shall describe the specific virtues of tastes. Of these, the sweet taste is possessed of the virtue of increasing the quantity of lymph-chyle, blood, flesh, fat, bone marrow, albumen (ojas), semen, and milk in a parturient woman. It materially contributes to the growth of bones, strengthens the eyesight, favours the growth of hair, improves the complexion of the body, brings about the adhesion of fractured bones (Sandhanam), and purifies the blood and the lymph-chyle. Likewise, it proves wholesome to infants, old and weak men and ulcer-patients (suffering from Endocarditis—Urah-Kshata) and is most coveted by bees and ants. It exhilarates the mind as well as the five sense-organs, relieves thirst, swooning and a burning sensation of the body, and originates Kapham. Similarly, it favours the germination of intestinal
parasites. Largely and exclusively partaken of, it brings on cough, dyspnœa, flatulence (Alasaka), vomiting, sweet taste in the mouth, hoarseness of the voice (aphonia), worms in the intestines, tumours, elephantisis, Vasti-lepa (mucous deposit in the bladder), Gudopolepa (mucous or slimy deposit in the anus), and Abhisandya (ophthalmia), etc.

**Acid taste:**—An acid taste should be regarded as a digestant of assimilated food, and is endued with resolving, appetising and carminative properties. It sets in the natural emission of flatus and urine, restores the natural movements of the bowels, lessens the tendency to spasms, and gives rise to an acid (digestive) reaction in the stomach, and to a sensation of external shivering. It originates a slimy or mucous secretion and is extremely pleasant or relishing. An acid taste, though possessed of the aforesaid virtues, brings on tooth-edge, with sudden closing of the eyes, appearance of goose-flesh on the skin, absorption of Kapham and looseness of the body in the event of its being largely partaken of to the exclusion of all other tastes. Owing to its fiery character, the taste under discussion sets in a process of suppuration in cuts or burns, or in incised, lacerated or punctured wounds, as well as in those, which result from external blows, or are due to fractures, swellings, or falls, or are brought about as the after effects of any idiopathic distemper,
or which are tainted with the urine of any venomous animals or through contact with any poisonous animal or vermin. It gives rise to a burning sensation in the throat, chest and the region of the heart.

**Saline taste:**—A saline taste is possessed of corrective (purgative and emetic) virtues, favours the processes of suppuration and spontaneous bursting of swellings, brings about the looseness or resolution of any affected part (ulcer), is heat-engendering in its property and proves incompatible with all other tastes. It cleanses the internal passages or channels of the organism and produces softness of the limbs and members of the body. A saline taste, though possessed of the aforesaid properties, may bring on scabies urticaria, oedematous swellings, loss or discoloration of the natural complexion of the body, loss of virile potency, distressing symptoms affecting the sense-organs, inflammation of the mouth and the eyes, haemoptysis, Vāta-rakta (a kind of leprosy) and acid eructations etc., in the event of its being largely partaken of to the exclusion of all other tastes.

**Pungent taste:**—A pungent taste is endued with appetising, resolving (Pachana) and purifying properties in respect of ulcers etc.), and destroys obesity, languor, deranged Kapham and intestinal parasites. It is antitoxic in its character, proves curative in
cases of Kūshta (skin diseases) and itches, and removes the stiffness of the ligaments. It acts as a sedative and reduces the quantity of semen, milk and fat. A pungent taste, though possessed of the aforesaid virtues, may bring on vertigo, loss of consciousness, dryness of the throat, palate and lips, burning sensation and a high temperature of the body, loss of strength, tremor, a sort of aching or breaking pain, and a neuralgic pain (Vata Shula) in the back, sides and the extremities, etc. in the event of its being largely partaken of in exclusion of all other tastes.

Bitter taste:—A bitter taste serves to restore the natural relish of a person for food and brings on a sense of general languor. It is a good appetiser, and acts as a good purifying agent (in respect of ulcers, etc.), and proves curative in itches and urticaria. It removes thirst, swoon and fever, purifies mother's milk, and is possessed of the virtue of drying up urine, ordure, mucous, fat and pus, etc. A bitter taste, though possessed of the aforesaid properties, may bring on numbness of the limbs, wry-neck, convulsions, facial paralysis, violent headache, giddiness, and an aching, cutting and breaking pain, as well as a bad taste in the mouth in the event of its being largely partaken of in exclusion of all other tastes.

Astringent taste:—An astringent taste is possessed of astringent, healing, styptic (Stam-
bhana), purifying, liquefacient, drying and contracting virtues. It lessens secretions from mucous membranes. An astringent taste, though possessed of the above-said properties, may bring on the peculiar type of heart disease known as (Hridroga) parchedness of the mouth, distention of the abdomen, loss of speech, wry-neck (Manya Stambha), throbbing or quivering and tingling sensations in the body with contraction of the limbs and convulsions, etc.

Now we shall make a general classification of the drugs according to their taste.

**Madhura-Groups** :- The drugs forming the groups known as the Kákölyádi-Gana, as well as thickened milk, Ghee, lard, marrow, Sháli and Shashtika rice, Yava, Godhuma, Másha pulse, Shringátaka, Kasheruka, Trapusha, Írváruka. Álávu, Kálaukata Ankalodya, Piyála, Fushkara, Víjaka, Kášmarya, Madhuka (Moula), Drákshá, Kharjura, Rájádana, Tála, Nárikela, modifications of the expressed Juice of Ikshu (Sugar cane), Valá, Ativalá, Átmaguptá, Vidári, Pyasyá, Gokshuraka, Kshiramorata, Madhúliká, and Kushmánda etc. are generally included within the Madhura group.

**Acid Groups** :- The fruits known as Dádima, Ámalaka, Mátulánga, Ámrutaka, Kapittha, Karamarda, Vadra, Kola, Práchíná-Ámalaka, Tintidhi,
Koshamra, Bhavya, Paravata, Vetraphala, Lakucha, Amla-Vetash, Dantashatha and curd, whey, Surā, Shukta, Sauvira, Tushodaka and Dhānyamla, etc. are generally included within the acid group.

**Saline Group:**—The different kinds of salt such as, Saindhaba, Sauvarchala, Vida, Pākya, Romaka, Sāmudraka, Paktrina, Yavakshāra (nitrate of potash), Ushara and Suvarchika collectively form the **Saline group.**

**Pungent Group:**—The component drugs which form the groups known as the Pippalyādi and the Surasadi-Ganas and Shigru, Madhu-sigru, Mulaka, Lashuna, Sumukha, Shitashiva (camphor), Kusotha, Devadāru, Harenukā, Valguja-phalam, Chandā, Guggula, Mustha, Langalaki, Shukanasa and Pilu etc. and the components of the group known as Salasaradi gana collectively form the pungent group.

**Bitter Group:**—The component members of the groups of medicinal drugs known as the Āragva-dhādi-Gana and the Guduchyādi-Gana together with Mandukparni, Vetra-karira, Haridra, Dāruharidra, Indra-yava, Varuna, Svdhu-kantaka, Saptaparna, Vrihati, Kantakāri, Shankhini, Dravanti, Trivrit, Kritavedhana, Karkotaka, Kāravelaka, Vārtāka, Karira, Karavira, Sumanah, Sankha-pushpi Apāmārga, Trāyamāna, Ashoka, Rohini, Vaijayanti, Suvarchala,
Pumarina, Vrishikali and Jyotishmati, etc. collectively constitute the bitter group.

**Astringent Group** — The component members of the groups known as the Nyagrodhade-Gana, the Amvashtadi-Gana, and the Priyangvadi and the Rodhradhi Ganas, Triphala, Shallaki, Jambu, Ámra, Vakula, Timduka fruits, Katakha fruits, Shaka fruits, Pashánabhedaka, the fruits of trees known as the Vanaspatis (lit: lords of the forest, such as the Vata, the Ashvatttha etc.) and most of the component members of the group known as the Salasaradi Gana, as well as Kuruvalka, Kovidráaka, Jivanti, Chilli, Palanka and Sunishanuaka, etc. and grains and pulse of the Nevára and Mudga species, collectively form the astringent group.

These tastes, in groups of different combinations, number sixty-three in all; as for example, fifteen, computed by taking two at a time; twenty, computed by taking three at a time; fifteen, computed by taking four at a time; six, computed by taking five at a time and six, being severally computed, thus making up an aggregate of sixty-three.

**Authoritative verse on the subject** — The man, who gradually habituates himself to the use of each of the six aforesaid tastes,
enjoys a sort of immunity from their injurious action in the same manner as, a strong man, who makes himself successively accustomed to the action of the three deranged humours of his body, is not easily affected by their pathogenetic properties.

Thus ends the forty-second Chapter of the Sutrasthānam in the Sushruta Samhita, which treats of the specific properties of flavours.
CHAPTER XLIII.

Now we shall discourse on the Chapter, which treats of the mode of administering emetics (Vamana-Dravya-Vikalpa-Vijnaniya-madhya-yam).

Of all emetic fruits the Madana (seeds) should be deemed as the best (most active). Madana fruits should be dried in the sun and powder. Then a Pala weight (eight tolás) of the powder should be stirred in a decoction of Pratyakpushpi, Sadá-Pushpi, or Nimva, and given to the patient with honey and Saindhava salt, for emesis. As an alternative, a potion consisting of the powders of raw Madana fruits, stirred in a decoction of Vakula and Ramyaka, and heated in fire, should be administered with the addition of honey and rock-salt. A gruel, consisting of sesamum rice and powders of green Madana fruits, boiled together, should be given to the patient. Likewise matured though not ripe Madana fruits should be stored in a box made of the blades of Kusha grass. The box should be plastered over with a composition of cowdung and clay and kept buried in a bushelful of Yava, Tusha, Mudga, Másha pulse or Shálí rice for eight consecutive nights. Then having extracted them, fully burst out, with the heat of the covering grain, their kernels should be separated from
their seeds and dried in the sun. Then having pasted them with curd, honey and the levigated paste of sesameum they should be again dried in the sun, after which they should be kept in a clean vessel. A Pala weight of the aforesaid prepared powder should be pounded in a decoction of Yasti nadhu or of any of the drugs of the Kovidarádi group over night, and given to the patient on the following morning, through the medium of honey and Saindhava salt. The patient should take it looking towards the north or the east, and the following benedictory Mantra should be recited on the occasion.

**Metrical texts**:—“May the gods Bramha, Daksha, Ashvis, Rudra, Indra, the earth goddess, the moon, the sun, the fire, the wind, the concourse of holy sages (Rishis) and the material elements with the curative properties of drugs they originate and nourish, preserve thee. May the potion prove wholesome to you, as the elixirs prove wholesome to the Rishis, the nectar to the gods, and ambrosia to the good Nagas.”

This emetic medicine should be specially employed in cases of catarrhal fever, catarrh, and internal abscess. In case of insufficient or unsatisfactory action of the potion, the drugs known as Pippali, Vachá, and a paste of Gaura-Sarsapa and Saindhava salt should be added to it. It should be administered warm and in repeated doses until the symptoms of emesis would fully
appear. In the alternative, powders of Madana kernels soaked in and saturated with their decoction and subsequently dried, should be administered through the same vehicle (decoction of the Madana kernels); or milk cream boiled with the kernels of Madana fruits should be administered with honey; or a barley gruel made with milk prepared as above should be prescribed for the purpose. This emetic measure should be resorted to in cases of Hæmatemesis or in Hæmorrhage from the bowels or generative organs and burning sensation in the heart due to the action of the deranged Pittam.

Milk, boiled with the kernel of a Madana fruit, should be curdled, and the cream of the curd or the curd itself so prepared should be used for emetic purposes in cases of water-brash, vomiting, syncope and dyspnœa. The essence (Rasam) of the seed pulps of Madana fruits should be pressed out and condensed in the manner indicated in connection with the extraction of oil (Sneha) of Bhallātaka, and the patient should be made to lick that condensed essence in cases where the Pittam would be found to have shifted into the natural seats of Kapham. Sun-dried and pulverised Madana fruits, mixed with a decoction of Jivanti, may be administered in its stead.

A decoction of the kernels of Madan seeds (Majja), saturated with powders of Pippali, Yādi or a potion consist-
ing of the same powder mixed with a decoction of Nimva or Rupika, should be prescribed in cases of lymphatic (Kaphaja) diseases due to acts of Santarpanam (use of emollient remedies), or the emesis in such cases should be effected with a decoction of Madhukam, Kashmari and Draksha saturated with the aforesaid powder. Thus the emetic remedies made of Madana fruits are discharged.

Pulverised Jimutaka flowers may be used in the same manner and through the same medium or with the same adjuvants and for same purposes, as the preceding (Madana fruit). Jimutaka fruits should be pulverised in their raw or unripe state and dried in the sun, and a gruel made with milk boiled with the same powder should be given to a patient for emesis; or milk-cream, boiled with the powder of Jimutaka fruits (lit: flowers*) powdered in their mature or hardened (Romesh) state, should be given; or the surface cream of milk boiled with the powders of full grown (Aromasha), greenish yellow Jimutaka fruits, or a Surā (wine) made of their decoction should be prescribed. These emetic remedies should be used in cases of disinclination for food through the action of deranged Kapham (lymphatic derangements), cough, dyspnea, jaundice and in phthisis as well, like the compounds of Madana fruits described.

* Fruits include flowers.
before. Mature Kutaja or Kritavedhana fruits may be used for emetic purposes in similar combinations and through similar mediums as the Madana fruits described before. Powders of Ikshāku fruits (Kushuma), similarly prepared with milk, curd, etc., may be used for emetic purposes in cases of cough, asthma, vomiting and non-relish for food due to the action of deranged Kapham (lymphatic disorders).

The emetic compounds of Dhāmārgava flowers are identical with those of the kernels of Madana fruits, the former being regarded as specifically indicated in cases of chemical poisoning, Gulma (internal gland), abdominal dropsy, cough, asthma, as well as in diseases due to the action of deranged Kapham (lymphatic disorders). The pulps or kernels of Kritavedhana seeds should be soaked in the expressed juice of emetic drugs and subsequently reduced to powder. The powder, so prepared, should be strewn over an Utpala or any other flower and the patients should be made to smell it in the case where the Kapham would be found to have changed its seat with the bodily Vāyu. Likewise, in cases of excessive derangement of the bodily humours, the patient should be given a stomachful of barley gruel and then made to eject the contents of his stomach by causing him to smell such a medicated flower. Sternotatoric (Shiro-virechanam) or emetic or purgative drugs prove most efficacious after
being soaked in or saturated with the expressed juice of their own.

**Authoritative verses on the subject:**—Thus a general outline of the leading characteristics of the emetic drugs in general has been given. An intelligent physician should choose an emetic remedy in consideration of the season of the year and the strength of the disease, and should try to set in the process of ejection in a patient either with the help of the expressed juice, paste or powder of the prescribed drug duly administered through the medium of an article of food or drink, or through an electuary.

Thus ends the forty-third Chapter of the Sutrasthanam in the Sushruta Samhita which deals with the choice and mode of administering emetics.