

AN OUTLOOK OF AN AYURVEDA AND MODERN BHEDANA KARMA (INCISION) –
A REVIEW ARTICLE

Dr. Vinod Kumar Borhale*

Assistant Professor, Department of Shalyatantra, NK Jabshetty Ayurvedic Medical College, Bidar, Karnataka, India.

*Corresponding Author: Dr. Vinod Kumar Borhale

Assistant Professor, Department of Shalyatantra, NK Jabshetty Ayurvedic Medical College, Bidar, Karnataka, India.

Article Received on 29/05/2023

Article Revised on 19/06/2023

Article Accepted on 09/07/2023

ABSTRACT

Ayurveda, the science of healthy living encompasses various branches related to different therapeutic aspects; *Shalya chikitsa* is one of them which involve surgical and para – surgical interventions. The *Shalya Chikitsa* deals with different surgical approaches for the management of various diseases such as; *Bhagandara, Pilonidal Sinus, Arsha, Charmakeela, Kadara etc.* *Shalya Chikitsa* provides versatile approaches for therapeutic purpose and “*Asthavidha Shastra karma*” is one such approach. *Acharya Sushruta* has been recognized as “Father of Surgery” worldwide and documented surgical principles to conduct safe surgery in his compendium known as *Sushruta Samhita*. *Asthavidha shastra karma (eight principles of surgery)* is a unique contribution comprises with *chedana* (excision), *hedana*(incision), *lekhana*(scrapping), *eshana*(probing), *aharana* (extraction), *visravana* (evacuating) and *sevana* (suturing). Among these *Bhedana Karma* is one of the *shastra karma* which involves incision procedure to open a cavity for draining out tissue debris, rakta, pus and waste discharge using *Vridhipatra, Nakha shastra and Utpatpatra* etc. Adopting the *Bhedana karma* followed by internal medicines will prevent recurrence/relapse with a high cure rate with no adverse effects.

KEYWORDS: *Ayurveda, Bhedana Karma, Incision.*

INTRODUCTION

The term *Ayurveda* translates (knowledge of life) has been described for healthy humanity and it is being practiced as holistic healing of medicine for curing an ailing person. *Sushruta* was the first surgeon to develop the cosmetic surgery. From treatise of *Sushruta Samhita* we know that thousand of years ago, sophisticated and scientific methods were practiced in india. *Bhedana* (incision) are basics of surgery which has both surgical and anatomical importance. *Bhedana karma* is one of the *shastra karma* which involves incision procedure to open a cavity for draining out tissue debris, rakta, pus. *Shastra karma* is the procedure or treatment done using sharp instruments. It comes under *Asthavidha Shastra Karma*. The reference of *Bhedana Karma* in our classics can be obtain from the following chapters in *Sushruta Samhita* in *Sutra Sthana 5th and 25th chapter, chedana, bhedana, lekha, Vyadhana, eshana, aharana, Visravana, sevana*. *Acharya Vagbhatta in Astanga Sangraha 38th chapter. Bhela Samhita in Chikistasthana 27th chapter, have explained Bhedana karma*. Especially *Acharya Sushruta* given detailed description beginning from materials used to procedure, indication and contraindications.

What is *Bhedhana Karma* ??“*BhedyamBhedaneyam, Vidradyadi*”

It means incision taken for opening a cavity or tapping of cavity to drain out pus, rakta, removing calculus etc.

Ideal Incision.

*Aayata (Deergha – adequate length)**Vishala (Vishteerna - extensibility)**Sama (Samapaaka - uniform cut edges)**Suvibhakta (Heena and atidoshamukta)**Nirashraya (Away from Jihwa, Danti, Asthi, Marma)*Should have knowledge of *Aama and Pakvaavastha (Asamapaakopakva)*

Direction of Incision

It should be done in the direction of hairs. Incision should be along the Langer Lines for natural ceases for cosmetic reason. Because of this operations in neck through longitudinal incision would have been better for proper access, the transverse incision along the natural cease is preferred. This will diminish the Keloid formation.

Improper incision

Injury to blood vessels and ligaments, severe pain, delayed wound healing and growth of Keloids.

Indications

All types of *Vidradhi* except *Sannipataja*, *Vataja*, *Pittaja* and *Kaphaja Granthi*

Vataja, *Pittaja* and *Kaphaja Visarpa*

Vrididhi

Vidarika

Prameha

Pidaka

Stan rogas

Nadi vrana

Contraindications

Wounds with Infection, Dehiscence, Cellulitis.

Surgical incisions with Ischaemia, fragile surrounding skin (due to age, or radiation therapy)

Types of Incision (Ayurvedic View)

Single Stroke Incision – Surgeon should face west and make incision in single stroke in direction of hairs, until pus is seen, saving the *Marma*, *Sira*, *Snayu*, *Sandhi* and *Asthi* the knife should be withdrawn softly. It should be 2 or 3 *angula* breadth only depend upon necessity.

Counter Incision – It should be given at some distance, according to *once yukti*, incise one incision is not enough to clear the wound completely. It should be given to provide adequate drainage. *Sushruta* had the knowledge of second incision use to promote drainage or to relieve tension on the edge of a wound when the most prominent part is not the most dependent part, complete drainage of pus is of not possible with single incision. So a counter incision is required at most dependent part to facilitate drainage by gravity.

Multiple Incision – In whichever the direction tracks lead and wherever pockets (*utsanga*) are presents, at all those places incisions should be made so that pus (*dosha*) remains.

Oblique Incision – Incisions are made oblique over eyebrows, cheeks, temples, forehead, eyelids, lips, gums, axilla, abdomen and groin regions.

Circular Incision – Over palms and soles circular incision should be done.

Semicircular Incision – Done over Penis and in Anal region.

BHEDAN KARMA(INCISION) INDICATED IN BHAGANDRA**Bhagandra**

In the management of different types of *Bhagandra*, *Acharya Sushruta* recommended some incisions.

1. Shatponak Bhagandra

Sushrut has mentioned the four types of incisions as *Langlak*, *Ardhalanglak*, *Sarvatobhadrak* and *Gotirthak*. *Langlak* means “hal” i.e. plough used by farmer in field.

The incision should have two arm perpendicular to each other and extending on either side like “T”

Ardhalanglak

It means the incision should be same as above but with only one arm like half of “hal” i.e. plough without handle. This may be similar to “l”

Sarvatobhadrak

It means when there is requirement of *circular (mandalakar)* incision around anal canal to open the fistulous track.

Gotirthak

Incision should be similar to *khur* of cow. This may be similar to semi-circular incision.

2. Ustragriva Bhagandar

Acharya Sushruta has not mentioned any type of incision. He just advised that the surgeon should evade the use of *Kshara* and *Agnikarma* after incision, because this may create severe painful condition during postoperative period.

3. Parishravi Bhagandar

Acharya Sushruta mentioned five type of incisions i.e. *Karjur patrak*, *Chandrardha*, *Chandar Chakra*, *Suchimukha* and *Avangamukha*.

1. *Kharjur Patraki* - Incision should having branches like the juncture of date palm leaf.
2. *Chandrardha* – It should be semi – circular.
3. *Chandra Chakra* – Incision should be like the circular like full moon.
4. *Suchimukha* – The pint point incision. This incision plan in two parts just like the two plane of a pyramid.
5. *Avagamukha* – It is most similar to *Suchimukha*, only the direction is reversed i.e. the meet point of two incision should away from canal.

Types of Incision (Modern Science)

Midline Incision – It is also known as Laparotomy incision, or Celiotomy, this the most traditional of surgical incisions. Midline incisions may be small and applied anywhere on the vertical line *Alba*. However they can also extend to Xiphoid process to the pubic bone. This location is mostly avascular plane and does not impose a great risk to the blood supply.

Kocher Incisions (Subcostal) – It is a subcostal incision on the right side of the abdomen used for open exposure of the gall bladder and biliary tree. This incision is just inferior and parallel to the subcostal margin. This incision extends through the anterior rectus fascia, and rectus muscle, internal oblique, transverse abdominis, transversalis fascia, and peritoneum.

Para-Median Incision- This incision serves to expose lateral viscera. It is made 3cm on average, lateral to the midline.

Gridiron Incision (MC Burney Incision) – This incision provides good exposure for performing open Appendectomies and is made obliquely at the MC Burney point, two-thirds from the umbilicus to the anterior superior iliac spine.

Lanz (Rockey – Davis)- It is similar to Gridiron Incision. It is useful for open Appendectomies.

Thoracoabdominal – It is a unique incision that connects the pleural cavity and the peritoneal cavity; it yields great exposure to lateral organs, retroperitoneal space, pleural space, and the distal oesophagus.

Chevron - It crosses the midline of the abdomen. It is a subcoastal incision that extends from the mid to lateral coastal ridge.

MC Evedy – It is a vertical incision from the femoral canal and brought superior to the above the inguinal ligament.

Median Sternotomy – It is a vertical incision over the sternum. It is used to access the mediastinum, pleural cavity, aorta, and the branches to the head and upper extremities as well as the epigastric region.

Clamshell - It is a large transverse incision that spans across the entire chest wall. It is also known as bilateral thoracotomy and it is used during massive chest trauma, lung transplant or resection of tumours in the chest

Inguinal Incision (Groin)- It is a transverse or oblique incision over the inguinal canal. It is used for Hernia repairs.

Similarities Between *Ayurved* and Modern Incisions.

Various incisions are mentioned while describing particular surgical operatives of diseases in modern sciences which may be correlated with incision for particular organ or region described in *Sushruta Samhita*. Few example as are as follows.

Radial Incision is made along the line radiating from the areola of breast for excision benign tumour and drainage of pus in breast. It can be correlated with *Tiryak* (oblique) incision in *Kaksha*(breast) region.

Kochers Incision- It starts in the mid line just below the Xiphoid process and runs downwards and laterally about 2 cm below and parallel to the coastal margin. It is popularly used for Gall Bladder operation. It can be correlated with *Tiryak* (oblique) incision in *Kukshi* (abdomen).

Gridiron Incision are same as mentioned above.

Acharya Sushruta opined four types of excision in *Bhagandar*. Surgeons can excise Fistula in Ano in two ways by probe or skin incision. So there are four types of incision namely *Ardhalangalak* (incision on both sides, being shorter on one side), *langalak* (equal in both sides), *Sarvatabhadrak* (circular), *Gotirthak* (semicircular) *Kakpadakar* (crows foot shaped) incision on scalp is described in *Sushruta Samhita* in case of snake bite.

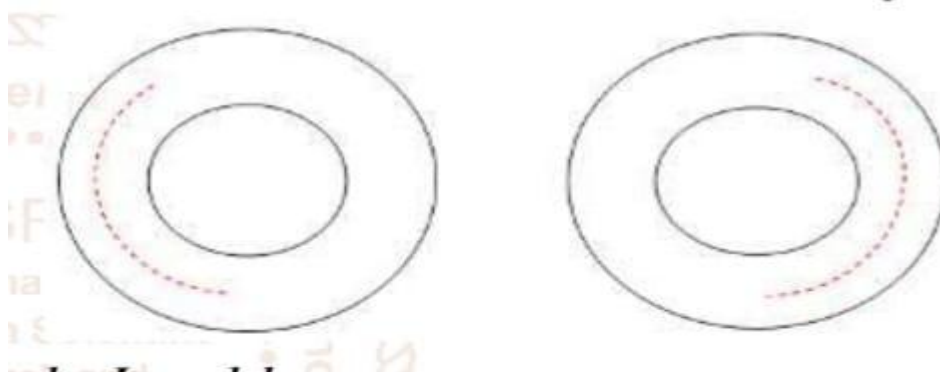
Dissimilarities Between *Ayurved* and Modern Incisions.

There are lots of differences between *Ayurved* and modern science concern with incisions but basic one is described as follows.

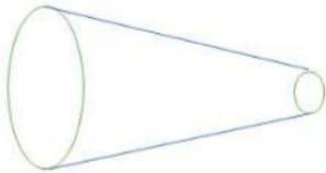
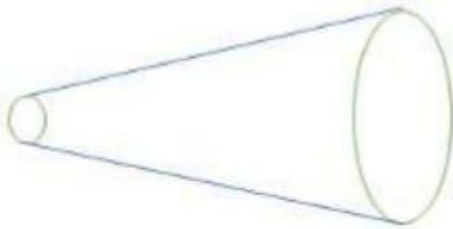
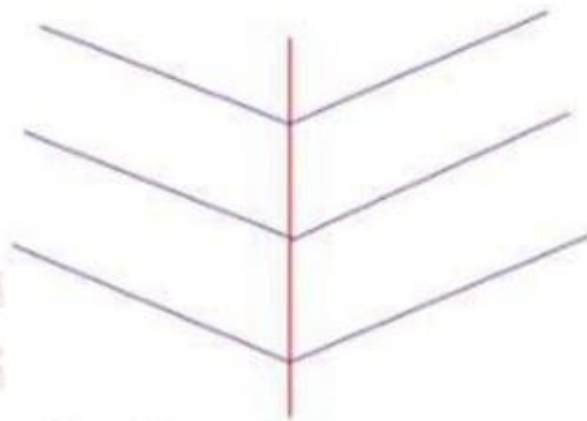
Modern sciences opined incisions according to diseases. *Ayurved* has mentioned incisions of some specific diseases only like *Bhagandar* (fistula). It does not mentioned incisions for every diseases instead of that it mentioned incisions according to body parts.

Radical Incision does not injure the lactiferous ducts, which lie in the same line as the line of incision. Kocher Incision may damage few intercostals nerve, yet no weakness of scar is found practically. Gridiron Incision does not damage nerve and also heals quickly because of its muscle splitting feature. Superficial epigastric and superficial external pudendal artery are secured during incision of herniotomy. These incisions follow the principles said by *Sushruta* that anatomical structures should be preserved and the shape of incision for particular organ.

In modern sciences fistula is a low or high level type is decided by Goodsalls Rule and according to that incisions is made. *Acharya Sushruta* has explained various incisions for *Bhagandar* (fistula) taking into considerations of various types and stages of a disease.



Ardha Langalaka

*Langalaka**Avangamukha**Suchimukha**Kharjura Patraka*

precautions were prescribed to spare the major structures and marmas of the body while making incisions.

REFERENCES

1. Dr. Anant Ram Sharma, Edited Sushruta Samhita of Maharshi Sushruta, Foreword by Acharya Priyavrat Sharma, Volume -1, Chaukhambha Surbharati Prakashan, Varanasi, Reprint., 2010; Sutra Sthana 5/5: Page No-37.
2. Dr. Anant Ram Sharma, Edited, Sushrut Samhita of Maharshi Sushruta, Foreword by Acharya Priyavrat Sharma, Volume -1, Chaukhambha Surbharati Prakashan, Varanasi, reprint., 2010; Sutrasthana 5/10: Page No-40.
3. Dr. Anant Ram Sharma, Edited, Sushrut Samhita of Maharshi Sushruta, Foreword by Acharya Priyavrat Sharma, Volume -1, Chaukhambha Surbharati Prakashan, Varanasi, Reprint., 2010; Sutrasthana 17/11: Page No-149.
4. Dr. Anant Ram Sharma, Edited, Sushrut Samhita of Maharshi Sushruta, Foreword by Acharya Priyavrat Sharma, Volume -1, Chaukhambha Surbharati Prakashan, Varanasi, Reprint., 2010; Sutra Sthana 5/7 : Page No-39.
5. Dr. soman das. A Practical Guide to Operative Surgery -4th Edition. Calcutta: Published by Dr. S. Das; 1999. Page No-23.
6. Dr Anant Ram Sharma, Edited, Sushruta Samhita of Maharshi Sushruta, Foreword by Acharya Priyavrat Sharma, Volume -1, Chaukhambha Surbharati Prakashan, Varanasi, Reprint., 2010; Sutrasthana 5/12 : Page No-40.
7. Sushruta Samhita of Sushruta with Nibandsangraha Commentary of Dalhan Acharya, Edited by Vaidya Yadavji Trikamji Acharya, Chaukhambha Orientaia, Varanasi, Reprint Edition., 2014; Verse 8.
8. Prof G.D Singhal and Colleagues, Sushruta Samhita, Ancient Indian Surgery, Chaukhambha Sanskrit Pratisthan, Sutrasthana 5th Chapter, Verse 7, Page No 45-46.
9. Acharya Sushruta, Sushrut Samhita by Dr. Ambika Data Shastri, Chaukhambha Publication, Varanasi Edition, Reprint 2018, Chikitsasthana Vol-1, Chapter 15.
10. <http://en.m.wikipedia.org>.

CONCLUSION

Sushruta Samhita deals with anatomy and surgery and deliberates on many contexts of contemporary interests such as different type of incisions and describes in detail the surgical care of patients with *Purva karma*, *Pradhana karma* and *Paschat karma* procedures. Special