INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY HEALTH SCIENCES
ISSN: 2394 9406

"CRITICAL ANALYSIS OF BHEDANA KARMA WITH MODERN SURGICAL CORRELATION - A REVIEW LITERATURE"

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Abstract:

Bhedana Karma is the foremost surgical procedure. It is needed to study and update the principles of Bhedana Karma. All the Brihat-trayees have given prime importance to Ashtavidha Shastrakarma. However Sushruta while enumerating the name of the diseases and their management has given scope to the surgeons to add as well as to redesignate the disorders by using their knowledge. The Shalya & Shalakya Chikitsa deals with different surgical approaches forthe management of various diseases such as; Bhagandara, Pilonidal Sinus, Anjanaanmika, Lagan etc. Shalya & Shalakya Chikitsa provides versatile approaches for therapeutic purpose and "Asthavidha Shastra karma" is one such approach. Asthavida shastra karma (eight principles of surgery) is a unique contribution comprises with chedan (excision), Bhedana (incision), lekhana (scrapping), eshana (probing), aharana (extraction), visravana (evacuating) and seevana (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 Vriddhipatra, Nakha shastra and Utpatpatra etc. Adopting the Bhedana karma followed by internal medicines will prevent

Ayurveda is the science of life. Since time immemorial, Ayurveda has been showing the ideal way of living, which promises a disease-free, happy and long life. The Ashtanga Ayurveda is like that of ocean of knowledge consisting of many concepts in concise form. The Shalya Tantra, which deals with different surgical procedures, instruments, various types of wounds and their management with the help of Bheshaja, Yantra, Shastra, Kshara, Agni and Jalauka.[1,2,3] The philosophy, surgical ethics and concepts contributed by Sushruta, 'the father of Indian Surgery', hold good even after nearly five thousand years of development in various aspects of surgery. All the surgeries can be explained with the help of Astavidha Shastra Karmas.

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, lekhana, Vyadhana, eshana, aharana, Visravana, seevana.[4] Acharya Vagbhatta in Astanga Sangraha 38th chapter. Bhela Samhita in Chikitasthana 27th chapter, have explained Bhedana karma.

Especially Acharya Sushruta given detailed description beginning from materials used for procedure, indication and contraindications.

Such study regarding the details of Bhedana Karma has not been taken up earlier. So, an attempt was made to assess the role of Bhedana Karma in contemporary surgical practice. The principles of Bhedana Karma are studied thoroughly and comparison is done with the principles of excision by reviewing the literatures in Ayurveda as well as modern textbooks of surgery.

AIMS & OBJECTIVE:

1. To elaborate Bhedana Karma in detail according to Ayurveda & Modern Prospective.
2. To evaluate its role in surgical practice.
3. To discuss about its mode of action.

MATERIAL & METHOD:

Bhedhana Karm:

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

Indication[5]	**Contra-Indication[6]**
All types of Vidradhi except Sannipataja, Vataja, Pittaja and Kaphaja Granthi Vataja, Pittaja and Kaphaja Visarpa Vriddhi Vidarika Prameha Pidaka Stan rogas Nadi vrana Anjanaanamika Lagan Bhitvartama. Vrunda Alaji Talu puputa Danta-puputa Tundikeri Gilayu Mukha- pakva vyadhis	Amavashta Atikshin Bhiru Rakta Kshaya Wounds Cellulitis. Surgical incisions with Ischaemia, fragile surrounding skin (due to age, or radiation therapy)

Ideal Incision[7]

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 :

Incision should be along the Langer Lines for natural ceases for cosmetic reason. It should be done in the direction of hairs. 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 rate of Keloid formation.

Improper incision :

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

Types of Incision (Ayurvedic View)[8]

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, in case 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

Types of Incision (Modern Science)[9] :

Midline Incision – It is also known as Laparatomy 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 Appendectomy.

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.

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

Observation:

Similarities:

Between Ayurveda and Modern Incisions there are lot more similarities 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.

Dissimilarities:

Between Ayurved and Modern Incisions, There are lots of differences between Ayurveda and modern science concern with incisions but basic one is described as follows. Modern sciences Perform incisions according to diseases while Ayurveda 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.

Discussion:

The comparison between Ayurvedic Bhedana Karma and modern surgical incisions demonstrates that the fundamental principles of both systems are remarkably similar. Acharya Sushruta emphasized selecting the appropriate type, direction, and depth of incision according to the affected organ while preserving vital anatomical structures such as blood vessels, nerves, muscles, and ligaments. Modern surgical techniques also follow these principles by adopting anatomical planes that provide adequate exposure with minimal tissue trauma. Incisions such as Kocher's, Gridiron, and radical breast incisions are designed to minimize damage to important neurovascular structures and promote better healing. Similarly, procedures like herniotomy , I & C and fistula surgery are planned based on anatomical considerations, including the course of vessels, nerves, and the fistulous tract, as guided by principles such as Goodsall's rule. Thus, although modern surgery has introduced modifications based on advances in anatomy, pathology,

and surgical technology, its basic concepts remain consistent with the principles described by Sushruta. This highlights the scientific relevance and enduring applicability of Ayurvedic surgical concepts in contemporary surgical practice.

Conclusion:

As we can conclude that all the technique of Bhedana karma & incision given by both Ayurveda and Modern Science is much of a similar technique or as there is some of modification made by modern science depending upon the disease state and condition. Both Ayurveda and Modern science focus on minimum invasion with maximum exposure of wound and to protect near by nerve and blood vessel while performing bhedana karma and incision e.g Radical Incision does not injure the lactiferous ducts, which lie in the same line as the line of incision. Kocher Incision may damage few intercoastals 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 pudenal 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.

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