



REVIEW ARTICLE: TRIVIDHA KARMA IN SHALYA TANTRA

Dr. Ramteke Alka*¹, Chandrakar Smriti¹, Singh Balendra² and Rajpoot Purnima³

¹M.S. Scholar, Department of Shalya Tantra, Government Ayurvedic College, Raipur, Chhattisgarh, India.

²Reader and H.O.D., Post Graduate Department of Shalya Tantra Government Ayurvedic College, Raipur Chhattisgarh, India.

³Assistant Professor, Department of Shalya Tantra, Mahaveer College of Ayurvedic Science, Rajnandgaon, Chhattisgarh, India.

***Corresponding Author: Dr. Ramteke Alka**

M.S. Scholar, Department of Shalya Tantra, Government Ayurvedic College, Raipur, Chhattisgarh, India.

Article Received on 06/06/2017

Article Revised on 26/06/2017

Article Accepted on 16/07/2017

ABSTRACT

Acharya Sushruta has delineated in detail about preliminary surgical measures (purva karma) – accessories which are to be collected at the outset, operative measures (pradhan karma) – modes of incision at the different forms of surgical operations, after measures (pashchat karma) - measures to be adopted after surgical procedures.

KEYWORDS: Purva Karma, Pradhana Karma, Pashchat Karma.

INTRODUCTION

Sushruta Samhita is one of the leading samhita of Vruhatrai. The Sushruta Samhita was written in the holy city of Kashi, sometimes around 1000B.C. Sushruta was primarily a surgeon and recognized as the Father of Surgery.^[1] Acharya Sushruta has described the definition of Shalya Tantra –Shalya Tantra is the name of that branch which describes the methods of removal of different kinds of foreign objects, such as grass, wood, stone, sand, bone, hair and nail; pus, exudation, vitiated ulcer, use of caustic alkalies and fire (cautery) and diagnosis of ulcers or wounds.^[2] Shalya means any foreign body (substance) which can harm to body and mind.^[3]

Sushruta's division of surgical activity into three parts- pre operative, operative and post operative is based on sound scientific principles. These procedures are described as purva karma, pradhan karma and pashchat karma under the heading of Trividha Karma.

Purva Karma- "The Preparation" Purva Karma includes collection of all the essential equipments which are required to prevent any danger or destruction of main action and ensure success. Sushruta has explained the list of muniments for the surgeon desirous of performing an operation should be collected, instruments (both sharp and blunt) caustic, fire, probes, horn, leeches, gourd (blood sucking apparatus) jambavostha (a cauterization probe) , cotton, gauze, suture and ligation materials, medicinal leaves, bandages, honey, ghee, lard, milk, oil

(to be used as ointment and soothing dressing), tarpan (refreshing liquids), kashaya (decoction), ointment, paste, fans, cold water and hot water, bowls etc.^[4] and also parikarminah (attendant) who are affectionate, steadfast and strong.^[5] He also mentioned the importance of sterilization of instruments to prevent post operative infection or septicemia by using sharp instruments heated in fire.^[6] Acharya Vagbhatta also described about sterilization of bandaging clothes, it should be sterilized and fumigated.^[7] Sushruta has illustrated the preoperative assessment of patients should be done. All form of treatment given only after full consideration of the intensity of the disease and general condition of the patient. If it is impossible to guarantee success in such cases by even an experienced surgeon, it is recommended that this type of surgical procedure should be done only as a last resort.^[8]

Sushruta has also described the preoperative appreciation of foreign body, its size, shape and exact location within the body and appropriate instrument for its removal should be selected preoperatively. He has also mentioned the preoperative diet and starvation for various types of surgeries, before all operations patient should take light diet only. Apart from these some exceptions such as artificial or instrumental delivery, abdominal conditions, piles, calculus disease, fistula-in-ano, and surgical conditions of mouth the patient should be completely starving before surgery.^[9]

Pradhana Karma – It includes the Shashtra Karma, before doing the main surgical procedure worship of

Agni, Brahman and surgeon should be done on the propitious tithi and constellation, by making offering of curd, sanctified rice, food, drink and germs; then offer oblation, sacrificial ritual and spiritual motets of benediction; the patient is then given light food and made to sit by facing east and the surgeon sitting opposite to the patient.^[10] the incision should be made swiftly in one stroke only.^[11] in the direction of hairs.^[12] Counter incision should be given at some distance, one incision is not enough to clear the wound completely, in whichever direction the sinus leads and wherever bulging or pockets are present incision should be done so that no vitiated blood or pus remains inside.^[13] Oblique incision should be given in the following regions – eyebrow, cheek, temple, forehead, eyelid, lip, hum, axilla, belly and groin. The experienced surgeon should make the circular or semicircular incision in the upper and lower limbs and in guda (anus) and medra (penis).^[14] Asepsis and antisepsis precaution should be taken, wound (discontinuity of tissue) should be protected from dangerous and invisible creatures (Nishachra).^[15] Acharya Sushruta has described eight type of shashtra Karma, Acharya Charaka has described six type of shashtra karma and Acharya Vagbhatta has described thirteen type of shashtra karma.

Table no: 1

S.No.	Acharya Sushruta ^[16]	Acharya Charaka ^[17]	Acharya Vagbhatta ^[18]
1.	Chedya	Patana	Utpatana
2.	Bhedya	Vyadhana	Patana
3.	Lekhya	Chhedana	Seevan
4.	Vedhya	Lekana	Eshana
5.	Esya	Pracchhana	Lekhana
6.	Aaharya	Seevan	Pracchhana
7.	Visarvya		Kuttana
8.	Seevya		Chhedana
9.			Bhedana
10.			Vedhana
11.			Manthana
12.			Grahana
13.			Dahana

1. Chhedana – Means excision of diseased part from the normal part of body by using mandlagra, karpatra, vrudhipatrea, mudrika, utapalpatra etc.^[19] Chhedana Karma is indicated in Fistula-in-ano, lymphadenitis due to kapha, pigmented moles, sinuses, new growths, haemorrhoids, warts, foreign bodies situated in the bone, jatumani, muscular tumours, uvulitis, gangrene of ligaments, muscles and vessels, valmika, sataponak (variety of fistula-in-ano) adhrusa, penile ulcers, keloida and excessive granulation tissue formation.^[20]
2. Bhedana – Means incision made for opening a cavity to drain out collected pus, blood, removing calculus etc. by using vrudhipatra, nakhashastra, utpalpatra etc.^[21] Bhedana Karma is indicated in all abscesses except that caused by a combination of all the three dosas, the three types (Vataj, pittaj and kaphaj) of lymphadenitis, cellulitis of all the three

dosika types, all seven types of enlargements, vidarika, boils associated with the abnormal urinary discharges, inflammatory oedemas, mammary diseases, avamanthaka, kumbhika, anusayi, sinuses, the two varieties of vrana, disease of the throat, puskarika, alaji, almost all minor diseases, abscess of the soft palate, gingival abscess, tonsillitis, gilayu and other suppurating diseases, vesical calculus and other diseases of the urinary bladder, and disease of the adipose tissue.^[22]

3. Lekhana – Means Scrapping, the surgical operation known as scarification should be resorted to in the following diseases, viz. The four types of rohini (Diphtheria), kilasa (Leucoderma), upajihva (Uvulitis), diseases having their seat in the dearranged fat, danta- vaidarbha, granthi (lymphadenitis), vranavartma (disease of eyelids), adhi-jivha, arsha (Haemorrhoids), mandala (tuberculous leprosy), mansa-kandi (keloid) and mansonnati (elevated muscles growth).^[23]
4. Vedhana – Means aspiration or puncturing, it is indicated for venepuncture of various types, hydrocele and ascites.^[24]
5. Eshana – Means probing by using probe of different shape (Tikshankantak, yavvaktra gandupad mukhi, eshani)^[25] it is indicated in sinuses, ulcer with foreign body and those with tortuous tracks.^[26]
6. Aaharana – Means extraction by using dantashanku, nakhapatra, anguli etc. extraction is indicated for the three kind of sarkara (vataj, pittaj, kaphaj – urinary gravel), dantmala (tartar of the teeth), karnamala (ear wax), asmari (urinary calculi), salya (all kind of foreign body), mudha garbh (impacted foetus) and faeces accumulated in the rectum.^[27]
7. Vishravana – Means Bloodletting or drainage of pus by using needle, trikurchak, shararimukha, aatimukha shastra etc.^[28] It is indicated in five kinds of vidradhi (abscess) except sannipataja (born from all the doshas together), vataja kusta saruja (leprosy of vata origin having pain), ekdeshaj shophya (inflammatory oedema confined to one place), palyamaya (diseases of the earlobe), slipada (filariasis), visajusta shonita (blood vitiated by poison), all kinds of arbuda (malignant tumours), all kind of visharpa (erysipelas), the first three kind of granthi (vataja, pittaja, kaphaja- syphilis), stanroga (diseases of the breast), vidarika (pustule in groin and axilla), sausura (small sinus of the tooth), gala shaluka (epiglossitis), kantaka (inflammation of tongue), krimidanta (caries of teeth), dantavesta (gingivitis), otha kopa arising from pitta, rakta and kapha (inflammation of lips), sitada (scurvy), danta pupputa (gingivitis) and kshudra rogas (minor disease).^[29]
8. Seevana – Means suturing by using different types of needle according to body parts, it is indicated for diseases arising from fat such as tumor etc which have been incised, scraped well, sadyovrana (traumatic wound) and diseases localized on movable joints.^[30] Table No. 2 types of seevana –

No.	Seevana types ^[31]	Suture type
1.	Rhujugranthi	Interrupted suturing
2.	Anuvellita	Continuous suturing
3.	Gofanika	Blanket or button –hole suturing
4.	Tunnasevani	Halstead's subcuticular suturing

After having used the sharp instruments the patient should be reassured, then spray of cold water should be dashed over the face and the eyes of the patient to relieve the pain and the sense of exhaustion incidental to the operation. The site of incision should be firmly pressed and the margins of the wound should be rubbed with the finger so that they may have a level surface and be

uniform structure through-out. The wound should be irrigated by medicated decoction (Nimba, Triphala etc) and then the liquids should be mopped up by a swab, then a lint plug (varti) plastered over with the paste (kalka) or sesamum honey and clarified butter and soaked in disinfectant (lit: purifying medicines such as Ajagandha etc.) should be inserted deep into the cavity of the wound. After that, a poultice made of officinal substance should be applied over it and the whole should be bound up with thick layer of tow (kavalika- which are neither too irritant nor too cooling in their effect).^[32] and then bandaging should be done.

Table No. 3 Types of Bandha.

NO.	Types of Bandha ^[33]	Body parts
1.	Kosha (like- Sac)	Thumb, Fingers and Joints of finger
2.	Dama (wound round like a band)	Painful parts
3.	Svastika (Cruciform)	Joints, over metatarsals, between brow, between breast, palms, soles and ears.
4.	Anuvellita (bent underneath, twisted)	Extremities
5.	Mutoli (broad, windind)	Neck, penis
6.	Mandala (circular)	Round/Cylindrical parts
7.	Sthagika (stump like)	Tip of thumb, finger and penis
8.	Yamaka (With two folds)	Two wound side by side
9.	Khatva (Hammock like)	Lower jaw, temples and cheeks
10.	China (T bandage)	Outer canthus of eye
11.	Vibandha (Binding from both side)	Back, abdomen and chest
12.	Vitana (Tent like)	Head
13.	Gophana (like horns of cow)	Chin, nose, lips, shoulder and urinary bladder.
14.	Panchangi (five tailed)	Parts above the shoulder
15.	Utasangi	Upper limbs

Pashchat karma – Means post operative measures, after the surgical procedure, dressing and bandaging wound should be fumigated by using drugs - aguru, white mustard, saindhava and leaves of the nimbi tree, soaked in clarified butter. The residue of the clarified butter should be rubbed over the region of the heart and other vital parts of the patient.^[34] The patient is kept in vranitagar (post-operative ward). Fumigation of vranitagar should also be done for ten days, twice a day.^[35]

CONCLUSION

By the study of above review article we can understand the systematic method of arranging the surgical experience of the older surgeons, about preliminary measures, principal measures and after measures. All the procedures including under these three headings are very essential for a successful surgery and the complete cure of disease.

REFERENCES

1. www.ijrap.net, IJRAP, Research Article, ISSN: 2229-3566, surgical procedure in Sushruta Samhita, by Singh R.K. and Vyas M.K.
2. Sushruta Samhita Translated by Prof. K. R. Shrikantha Murthy, Chaukhamba Orientalia, Varanasi, Volume 1, reprint Edition, 2012, Sutrasthana 1/1: 4.
3. Sushruta Samhita Translated by Prof. K. R. Shrikantha Murthy, Chaukhamba Orientalia, Varanasi, Volume 1, reprint Edition, 2012; Sutrasthana 7/4: 46.
4. Trividha Vigyanam by Dr G. D. Singhal Chaukhamba Orientalia Varanasi, Nov 13th 1963; 57.
5. Sushruta Samhita Translated by Prof. K. R. Shrikantha Murthy, Chaukhamba Orientalia, Varanasi, Volume 1, reprint Edition, 2012; Sutrasthana 5/6: 29.
6. Sushruta samhita revised by Dalhan and Gaydas with "Nibandha sangrah" and "Nyaya Chandrika", Edited by Dr Keval Krishna Thakral, Published by

- Chaukhamba Orientalia Varanasi 1st Edition, Chikitsasthana, 2/46: 207.
7. Astang Hridayam of Vagbhata commentary by Dr. Bulusu Sitaram, Chaukhamba Orientalia Varanasi, Volume 1, Edition, 1st 2008, Sutrasthana 29/29: 320.
 8. Trividha Vigyanam by Dr G. D. Singhal Chaukhamba Orientalia Varanasi, Nov 13th 1963; 57.
 9. Sushruta Samhita Translated by Prof. K. R. Shrikantha Murthy, Chaukhamba Orientalia, Varanasi, Volume 1, reprint Edition, 2012; Sutrasthana 5/16: 31.
 10. Sushruta Samhita Translated by Prof. K. R. Shrikantha Murthy, Chaukhamba Orientalia, Varanasi, Volume 1, reprint Edition. 2012; Sutrasthana 5/7: 30.
 11. Trividha Vigyanam by Dr G. D. Singhal Chaukhamba Orientalia Varanasi, Nov 13th 1963; 64.
 12. Trividha Vigyanam by Dr G. D. Singhal Chaukhamba Orientalia Varanasi, Nov 13th 1963; 65.
 13. Trividha Vigyanam by Dr G. D. Singhal Chaukhamba Orientalia Varanasi, Nov 13th 1963; 66.
 14. Trividha Vigyanam by Dr G. D. Singhal Chaukhamba Orientalia Varanasi, Nov 13th 1963; 66.
 15. International Ayurvedic Medical Journal, ISSN: 2320 trividha Karma in Shalya tantra: A Conceptual study, by Dr N. V. Borse, and Dr Mali Sandip Matu.
 16. Sushruta Samhita Translated by Kaviraj Kunjalal Bhishagratna, Edited by Dr. Jyotir Mitra, Chaukhamba Sanskrit Series Office Varanasi, Volume 1, Edition, 1st, 1998, sutrasthan 5/3: 35.
 17. Charak Samhita of Agnivesha, Vaidyamanorama hindi commentary by Acharya Vidyadhar Shukla and Prof. Ravi Dutt Tripathi, foreword by Acharya Priyavrat Sharma, Chaukhamba Sanskrit Pratishthan Delhi, Volume 2, Edition reprint, 2004; 25/55: 610.
 18. Ashtang Hridayam of Vagbhata translated by Prof. K.R. Srikantha Murthy, Krishnadas Academy, Varanasi, Volume 1, Edition, 1st 1991; 26/28: 302.
 19. International Ayurvedic Medical Journal, ISSN: 2320 trividha Karma in Shalya tantra: A Conceptual study, by Dr N. V. Borse, and Dr Mali Sandip Matu.
 20. Sushruta Samhita Ancient Indian Surgery Translated by Prof. G. D. Singhal & colleagues, Chaukhamba Sanskrit Pratishthan, Delhi, Volume 1, 2nd Edition, 2007; Sutrasthana, 25/3-4: 221.
 21. International Ayurvedic Medical Journal, ISSN: 2320 trividha Karma in Shalya tantra: A Conceptual study, by Dr N. V. Borse, and Dr Mali Sandip Matu.
 22. Sushruta Samhita Ancient Indian Surgery Translated by Prof. G. D. Singhal & colleagues, Chaukhamba Sanskrit Pratishthan, Delhi, Volume 1, 2nd Edition, 2007; Sutrasthana 25/5-8: 221.
 23. Sushruta Samhita Ancient Indian Surgery Translated by Prof. G. D. Singhal & colleagues, Chaukhamba Sanskrit Pratishthan, Delhi, Volume 1, 2nd Edition, 2007; Sutrasthana 25/9-10: 222.
 24. Sushruta Samhita Ancient Indian Surgery Translated by Prof. G. D. Singhal & colleagues, Chaukhamba Sanskrit Pratishthan, Delhi, Volume 1, 2nd Edition, 2007; Sutrasthana 25/9-10: 222.
 25. Sushruta Samhita Translated by Prof. K. R. Shrikantha Murthy, Chaukhamba Orientalia, Varanasi, Volume 1, reprint Edition, 2012; Sutrasthana 25/10-2: 222.
 26. Sushruta Samhita Ancient Indian Surgery Translated by Prof. G. D. Singhal & colleagues, Chaukhamba Sanskrit Pratishthan, Delhi, Volume 1, 2nd Edition, 2007; Sutrasthana 25/11: 222.
 27. Sushruta samhita revised by Dalhan and Gaydas with "Nibandha sangrah" and "Nyaya Chandrika", Edited by Dr Keval Krishna Thakral, Published by Chaukhamba Orientalia Varanasi 1st Edition, Sutrasthana, 25/11: 290.
 28. International Ayurvedic Medical Journal, ISSN: 2320 trividha Karma in Shalya tantra: A Conceptual study, by Dr N. V. Borse, and Dr Mali Sandip Matu.
 29. Sushruta Samhita Translated by Prof. K. R. Shrikantha Murthy, Chaukhamba Orientalia, Varanasi, Volume 1, reprint Edition, 2012; Sutrasthana 25/12-15: 184.
 30. Sushruta Samhita Translated by Prof. K. R. Shrikantha Murthy, Chaukhamba Orientalia, Varanasi, Volume 1, reprint Edition, 2012; Sutrasthana 25/16: 184.
 31. International Ayurvedic Medical Journal, ISSN: 2320 trividha Karma in Shalya tantra : A Conceptual study, by Dr N. V. Borse, and Dr Mali Sandip Matu.
 32. Sushruta Samhita Translated by Kaviraj Kunjalal Bhishagratna, Edited by Dr. Jyotir Mitra, Chaukhamba Sanskrit Series Office Varanasi, Volume 1, Edition 1st, 1998; sutrasthan 5/13: 38.
 33. Sushruta Samhita, Ayurvedatatvaandipika, hindi translation by Kaviraj Dr, Ambika Dutta Shastri, Chaukhamba Sanskrit Sansthan, Varanasi, Volume 1, Edition reprint, 2012; Sutrasthan 18/19: 98.
 34. Sushruta Samhita Translated by Kaviraj Kunjalal Bhishagratna, Edited by Dr. Jyotir Mitra, Chaukhamba Sanskrit Series Office Varanasi, Volume 1, Edition 1st, sutrasthan, 1998; 5/1: 38.
 35. International Ayurvedic Medical Journal, ISSN: 2320, trividha Karma in Shalya tantra: A Conceptual study, by Dr N. V. Borse, and Dr Mali Sandip Matu.