THE SURGICAL PERSPECTIVE OF AYURVEDA: SHALYA TANTRA & ITS ADVANCEMENT

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INTRODUCTION

Ayurveda is a system of healthcare management offering various principles to maintain healthy well being. Shalya Tantra the science of surgery dealt with various invasive and non invasive approaches related to the operative procedure.[1] Dhanvantari defines terms Yogy Shasta karma means ability to practice well learned surgery and for this they prescribed practice of incision of pushpapahala & Alabu before performing actual surgery. Similarly ayurveda also suggests venesection practice on dead animals.[2] The terms Paruschittas described for dissector which means person possess ability to cut, open and rejoin body parts and scientists started this practice anciently. The surgical practice involves use of various instruments & materials which enable surgical practice to be more acceptable & advanced.[3] Sushruta and Vagbhata described many surgical instruments e.g., Samdamsa Yantras; Simhamukha and Shararamukha. As per ayurveda there are eight types of surgical procedures (Ashtavidha Shastra Karma) used for various purposes like; incision, excision opening or tapping a cavity, scraping, puncturing, probing and drainage of pus. This article presented ayurveda perspective of surgical approaches with its recent advancement.

ABSTRACT

The ayurveda traditional science of ancient medicine described Shalya Tantra as surgical science. The Shalya karma may be used in conditions such as; Jalodar Baddhagudar, Arsha, Mutrajvrudhi, Chidrodar, Bhangandar, Mudhagarbha and Kaphaj-lingnas. Shalya tantra is one of the eight branches of ayurveda which deals with the surgical and para-surgical approaches of treatment. Shalya tantra has been given prime importance since it offer Asu kriya karanaath property, it encompasses basic principles of surgery such as; use of Yantra Sashtra Kshara Agni pranidhaanat and use of Sarva tantra Suamanyat. This review presents various ayurveda perspective of Shalya Tantra as a science of surgery.

KEYWORDS: Ayurveda, Shalya karma, Shalya Tantra, Shastra karma, Surgery.

Figure 1: Ashtavidha Shastra karma (Eight surgical procedures) as per Ayurveda.

Trividha Shalya Karma

As like other approaches of ayurveda Shalya Tantra also involve Trividha approaches of surgical practice which encompasses; Purvakarma, Pradhana Karma and Paschat Karma. The Purvakarma associated with factors which need to b handled before performing main operative procedure. Pradhana Karma involve various aspect of operative procedure while Paschat Karma dealt with post-operative consideration.[4]
Purvakarma
Patient preparation, surgical guideline and arrangement of material to be used in operative procedure such as; shalaka, horns, leeches, jambavoushita, cotton, sutra, ghee, oils and tarpan etc.
- Sterilization is one of the important aspects of Purvakarma especially for Thalai Paayana, Udaka Paayana and Kshara paayana. Agni tapta salaka is one of the ancient utility of sterilization methods.
- Preparation of Patient is also considered under the heading of Purvakarma which generally involve diet suggestion for patient who is to be operated; light food is advised before minor operative procedure. However surgeries associated with Moodha garbha, Udara, Arshas, Ashmari, Bhagandara and Mukha roga are suggested in empty stomach.

Pradhana Karma
This includes mainly Ashtavidha Shastra karma as mentioned in figure 1. Pradhana Shalya Karma involve following main operative procedure[3]
- Chedana: for diseases like; Bhagandara, Granthi, Tilakalaka and Arbuda (tumor).
- Bhedana: for diseases like; Vidradhi, Granthi and Vrudddhi.
- Lekhana: for diseases like; Upajihvika.
- Vyadhana: for disease like; Bahuwidha sira, Moitra vriddhi and Dakodaram.
- Esana: indicated in sinuses and wounds.
- Aharana: indicated in Ashmari, Danta mala, Karma mala and Moodha garbha.
- Visravana: indicated in Kushta, Ekadeshaja sopha and Palyamaya.
- Seevana: indicated for Medas disorders, incised wounds and lesions.

Suturing is also an important procedure applied as ligation for the surgical cut. Suturing may be considered as Pradhana Karma & also as part of Paschat Karma. Suturing involve use of sutra (threads) made up of silk, cotton, jute, Snayu, etc. through needles applied to stitch cut or operated body parts.[6,7]

The sutures may be various types as follows
- Rujugranthi: Simple interrupted.
- Anuvellita: Simple continuous.
- Gopanika: Blanket sutures.
- Tunna sevani: Subcuticular.

Paschat Karma
Paschat Karma considered post operative aspects; the operative area should be cleaned & dressed regularly with Vikeshiba or with suggested formulations.[8] The ayurveda also suggests use of fumigation with antimicrobial medicines to avoid any chances of infections. The care towards the any chances of pus formation should be taken. The major surgical procedure involves patient care in Vranitagara for few days as per desired protocol. The fumigation of Azadirachta indica & Ashtanga dhupas also help to maintain aseptic condition this should be done as Purvakarma & Paschat Karma.[9]

ADVEMENTMENT OF AYURVEDA SURGERY[4-10]
Nasa-Sandhana
The Nasa-Sandhana means rhinoplasty is one of the advanced forms of ayurveda surgery however its initiation was well established by Sushruta and it is type of reconstructive surgeries and somewhat resembles plastic surgery of modern science. This mainly applied for nasya Shalya. The materials such as; Pattanga or Rakta Chandana, Yastimadhu and Rasanjana may be applied over the wound followed by cotton pad covering soaked in Sesamum oil.

Karna-Sandhana
The Sushruta described reconstructive surgeries of ear lobules in different pathological conditions associated with congenital anomalies or trauma. The ayurveda text encompasses techniques to repair ear lobules as Karna-Sandhana by the flap of cheek.

Ostha Sandhana
This involve repair of deformed lip as process used in Nasa-Sandhana. However due to the lack of detailed literature availability the Ostha Sandhana practicing rarely.

Table 1: Unique surgical techniques as per ayurveda.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Surgical approaches</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Langalaka, Ardhalangalaka and Savatobhadraka</td>
<td>To remove the fistulous tract</td>
</tr>
<tr>
<td>2</td>
<td>Perineal lithotomy</td>
<td>To remove urinary stones</td>
</tr>
<tr>
<td>3</td>
<td>Exploration of abdomen</td>
<td>For Baddha gudodara</td>
</tr>
<tr>
<td>4</td>
<td>Exploration of abdomen</td>
<td>For Chidrodara</td>
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<tr>
<td>5</td>
<td>Sandhana, Skandana, Dohana &amp; Pachana</td>
<td>To arrest bleeding</td>
</tr>
</tbody>
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REFERENCES