



## Review Article

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### DIFFERENT PARASURGICAL PROCESS USED IN NETRA ROGA: A REVIEW

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#### ABSTRACT

Sushruta known as father of surgery has described various surgical process along with parasurgical measures. Agni Karma, Kshara karma Raktamokshna is amongst of these parasurgical procedures. These procedures have been given special place in surgery by Sushruta and it is believed that the disease that cannot be cured by any medicine or in subjects where surgery is not possible these processes are very much effective. In present modern era it is used as heat cauterization, alkali burn and bloodletting etc. This article deals with various aspects of parasurgical process and its use in present context.

**Keywords:** Parasurgical process, Agnikarma, Kshara karma, Raktamokshna, Cauterization, Blood Letting.

#### INTRODUCTION

Acharaya Sushruta is the first person in Indian system of medicine described various surgical and para-surgical procedures and its application in different diseases. These para-surgical process includes Bhesajya Karma (Medicinal use), Kshara karma (Chemical cauterization), Agni Karma (Heat cauterization) and Raktamokshana (Bloodletting) etc. These procedures are specifically indicated according to stage and dosha predominance. Use of different para-surgical procedures has been mentioned in context of so many diseases in Shalya Tantra (Surgery) like Arsha, Arbuda, Bhangandra<sup>1, 2</sup>, Vatarakta, Gridhasi<sup>3</sup> etc.

Similarly Sushruta has also mentioned these surgical procedures in Shalakya Tantra Netra roga chikitsa like Pakshmakopa, Puyalasa, Abhisyanda and Adhimantha etc. The purpose of this review article is to evaluate and discuss the various basic concept of para-surgical procedures used in Netra roga chikitsa.

Now a days cauterization by heat and chemicals on affected tissue is done to remove the infections and prevent spreading organisms. Bloodletting procedures remove impure blood and increase immunity against infective organism. Hence use of para-surgical process is described in Ayurveda much earlier than its utility was discovered by modern surgeons. The technique and equipments have become advance but the basic principle are still same.

All the references of para-surgical process are collected and compiled from Sushruta Samhita and other Ayurvedic Scriptures, research papers and Journals of Ayurveda.

Acharya Sushruta described yantra in sutra stana along with upyantra and Anushastra. Agni, Kshara and Raktamokshana by jaluka are described under upyantra as well as anushastra.<sup>4, 5</sup>

#### Indications of parasurgical procedures

Parasurgical procedures (Anu shashtra) are utilized when:

- The condition is contra indicated for surgery.

- The patient is an infant, child, or very much fearful.
- The surgical instrument is not available.
- The treatment is possible without surgical instrument.<sup>6</sup>

#### Agnikarma and Ksarakarma

Agnikarma will cure the otherwise incurable conditions with medicines, or surgery. The diseases cured by Agnikarma will not reoccur<sup>7</sup>.

#### Type of Agnidagdha<sup>8</sup>

- Twak dagdha: Burning up to skin level
- Mansa dagdha: Burning deeper into muscle tissues
- Sira Snayu Sandhi Asthi dagdha: Burning much deeper up to bones.

#### Indications of agni karma in netra roga

- Vartmagata roga (Disease of eyelids): Krichrommila (difficulty in opening of eyes), lagana (cystic swelling), Arbuda (Tumor), and Paksmoparodha ( Misalignment of eyelashes)
- Sandhigata roga( Disease of various junction of eyes): Puyalsa, Alaji(Dacrocystitis)
- Sarvagata roga (Disease of all part of eyes): Abhisyanda (Conjunctivitis) and Adhimantha of Vataja type. (Painful condition of eyes).

#### In the diseases of eye lids and eye lashes

Eye should be covered by wet gauze piece and the root of eye lashes in the lid margin should be burnt<sup>9</sup>.

Instruments like Jambavosta, needle or shalaka should be used for agnikarma. By dipping in heated liquids like honey, bee wax, jiggery or other oily substances, the diseases of vartma, upapakshma, lagana and linganasha should be burnt<sup>10</sup>. The burning should be as deep as the blood vessels.

**Kricronmela** (difficulty in opening of eyes): The treatment with snigdha nasya, dhuma, anjana, tarpana, putpaka, basti and sweda should be done initially. If it does not respond to these measures agnikarma should be done by touching the hot needle

in row. The gap between one burn to the another should be the size of green gram. The bindu type of agnikarma should be done only upto the level of skin<sup>11</sup>.

**Bisa vartma, Slista vartma** (Porous edema of lids) is not treated with lekhna karma then use of Agni and Kshara is mentioned by Vaghabhatta.<sup>1</sup>

**Paksmakopa** (Misalignment of eyelashes) if other treatment measures are not useful, then the eyelid should be everted and the fold afficated with the dosha should be burnt In bisa vartma, slista vartma and paksmakopa<sup>13</sup>.

**Paksmoparodha** (Misalignment of eyelashes)-Affected lid should be everted; lekhana and pratisharana should be done. If it does not respond, then it should be burnt with a hot needle or shalaka yantra.<sup>14</sup>

**Upapakma** (Extra row of eyelashes): Second row of eye lashes should be pasted with laksha rasa. Lifted with sandamsa yantra. A fine needle is heated red hot and the romakupas should be burnt with it. Later parisheka and nasya karma is done<sup>15</sup>.

**Bahya Alaji** (Cystic swelling): Agnikarma should be done and treated like a burnt wound<sup>16</sup>.

**Lagana** (Cystic swelling): If Pratisarana and anjana is not responding then agnikarma is the choice of treatment<sup>17</sup>.

**Abhisyanda and Adhimantha (Conjunctivitis and painful condition of eyes)**: Agnikarma should be done above the eyebrows, as a last measure. Agnikarma should be done only in vataja type of abhisyanda and adhimantha<sup>18</sup>.

**Puyalasa (Acute Dacrocystitis)**: if the disease is recurring after all the treatment measures, than agnikarma should be done with the help of fine needle.<sup>19</sup>

#### Kshara Karma

Kshara karma is important among all the parasurgical procedures, due to its advantage of destroying tridoshaja disorders by excision and scraping action. It is effective in eye lid diseases like lagana, arsho vartma, shushka arshas, vartmarbuda, pakshmakopa, and upapakshma mala.

Different Kshara is used in different disease- Lagana (Cyst) - Yavakshar, Tuttha, Gorochana, Pippali with honey

Arsho vartma, Shuskarsha, (Trachoma) - Eranda bija majja or vibhitaki kshara with honey

Pakshmakopa, Upapakshma mala (Misalignment of eyelashes) - Gunja kshara mixed with honey

#### Raktamoksana

Raktamoksana is an important therapeutic procedure in Shalya tantra<sup>20</sup>. It prevents skin diseases, swollen glands, general swelling and diseases of the blood, if done at regular intervals<sup>21</sup>. Sira vyadha and jaloukavcharan are useful in eye diseases.

#### Best time for raktamoksana

- Cloudless day in rainy season
- Cool day in summer
- Noon in winter

#### Indications

Following eye disease are treated with Raktamoksana-

- Puyalasa (Acute dacrocystitis)

- Complicated condition of Arma ( Pterygium)
- Savarna sukla ( Corneal ulcer)
- Pittaj timira ( Painless loss of vision e.g Hemorrhagic retinopathy)
- Kaphaja timira (Painless loss of vision e.g. Macular edema)
- Abhisyanda of all type (Conjunctivitis)
- Adhimantha of all type( Painful condition of eyes like congestive glaucoma, Uveitis)

#### Contraindications

- Very young, old, emaciated, exhausted
- Suffering from high fever, convulsions or unconscious patients
- General swelling in whole body
- Wasting due to unhealthy diet
- Anemia
- Piles
- Pregnant woman<sup>22</sup>

#### Site of Raktamokshan in eye diseases<sup>23</sup>

- Frontal area
- Outer canthus or inner canthus

#### Procedure

To open the veins in the head and neck, the patient is asked to put his fists on his neck and an assistant then puts a bandage around the neck and fists, and pull on it to make the vein stand out. Patient is then asked to blow out with his mouth closed.

- In Puyalasa: Siromoksana should be done followed by upnaha and other measures mentioned for akshipaka<sup>24</sup>.
- In Savrana sukla: first sarpipana than later siromoksana is done, followed by jaloukavcharana, if remnants are not cleared<sup>25</sup>.
- In Pittaja timira: After sarpipana, sira vyadhan is done<sup>26</sup>.
- In Kaphaja timira: After sarpipana, sira vyadhan is done<sup>27</sup>.
- In Vataja abhishyand: Sira mokhan is done when pain is not subsided<sup>28</sup>.
- In Pittaja and Kaphaja abhishyand: firstly Ghritpan than Sira vyadha is done<sup>29</sup>.
- In Raktaja abhishyand: Repeated Shiravydha is done. Jaloukavcharan is also useful<sup>30</sup>.
- In chronic diseases of eye (Pilla rog)- Shiravydha and virechan is done for complete recovery.<sup>31</sup>
- In Pothaki: Jaloukavcharan is recommended<sup>32</sup>.

#### Probable mode of action of agni karma

The local thermo therapy may increase tissue metabolism which may leads to excretion of the unwanted metabolites and toxins. Heat may stimulate lateral spinothalamic tract (SST) which leads stimulation of descending pain inhibitory fibre (DPT) which release of endogenous opoid peptide which binds with opoid receptors at substantia gelatinosa rolandi which inhibit release of P- substance (Pre- synaptic inhibition) and blockade of transmission pain sensation occurs<sup>33</sup>.

#### Probable mode of action of kshara karma

Kshara has shodhana, ropana, shoshana, stabbhan, vilyana and lekhana properties. Shodhana property helps in elimination or expulsion of unwanted and harmful substance from the wound. It helps in desquamation of sloughs (debridement) and draining of pus. Ropana property helps in healing of wound due to anti-septic action of kshara. Shoshana property helps in drying up and absorption of mucus discharge that gets collected in ulcer bed promoting the granulation. Stambhan property of kshara helps contraction of opposing edges of ulcer to promote healing and vilyana property cause liquification and dissolving of

localized unhealthy tissue. Hence by all these properties of kshara, healing property becomes faster.<sup>34</sup>

#### Probable mode of action of raktamokshana karma

Raktamokshana removes vitiated doshas which cause the ailment. This modality falls under purificatory therapies, which cleanse the body and helps in maintenance of health.<sup>35</sup>

#### CONCLUSION

It is easy to learn and apply the para surgical procedures in the management of different surgical Conditions where surgery is not possible to treat the condition or there is great chance of recurrence of disease. These process provides lot of options for the surgeon as it is easy to perform, less chance of recurrence, controlled bleeding, no need of suture, less post-operative hemorrhage and minimal pain.

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