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# A Review on *UdarPatan* with special reference to Laparotomy

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## ABSTRACT

*Ayurveda* is the oldest life science which deals with eight different branches (*Astanga Ayurveda*) related to different therapeutic aspects. *Shalya Tantra* is one of the prime branches which deals with surgical and Para surgical concept. *Acharya Sushruta* is a pioneer of Indian Surgery and *Sushruta Samhita* is only complete text, which deals with the problems of practical surgery, especially emergency condition. *Acharya Sushruta* has described various surgical emergencies namely, *Sadyo Vrana*, *Asthibhagna*, Haemorrhage, *Ashmari*, *Chidrodara*, *Moodgarbha*, *Bhadgudodara*, and their management. In above-described disease *Patan shastra kriya* is done. *Patan* is one of the *shastra kriya* among six types of *shastra karma* described by *Acharya Charak* in *Vrana chikitsa adhyay of Charak Samhita*. *Udar Patan shastra Kriya* is performed in *Udar rog* such as *Chidrodara*, *Moodgarbha*, *Bhadgudodara*, etc. which requires surgical interventions, So, here a review of *Udara Patan shastra kriya* is attempted to explore mentioned in *Ayurveda* with special reference to *udar roga*.

**Key Words** *Udar, Patan, Udar patan, Chidrodara, Moodgarbha, Bhadgudodara*

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## INTRODUCTION

*Acharya Vagbhata* quotes “*Roga Sarvapi Mandagni Suturaudarani Tu.*”

*Mandagni* causes improper digestion of food which leads to *Udara roga* which denotes the generalized distension or enlargement of abdomen of varied etiology. It is one among the *Ashtamahagada* (eight difficult diseases to cure). *Agni dosha and mala vriddhi* causes vitiation of *Prana, agni & Apana* and obstruction of the upward and downward channels of

circulation. The vitiated doshas get lodged between skin and muscle tissue and causes extensive distension of the abdomen resulting in *Udara roga*<sup>1</sup>. The cardinal features are *Kukshi adhmana* (enlargement of abdomen), *Karapada shopha* (oedema in the limbs), *Mandagni/ Atyanta Nastagni, Krushagatra* (emaciation)<sup>2</sup>. *Agnimandya* is mentioned as basic etiological factor for development of *udara roga*. Intake of excessive hot, saline, sour drinks, improper *Samsarjana krama* after Panchakarma therapy,

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improper *vamana* and *virechana*, *arsha*, *grahani* and *pleehadosha*, presence of ama, ulcerations and perforations are the main causes described in our classics. Low and delayed digestion, burning sensation, inability to determine between digestion and indigestion, disappearance of abdominal folds with prominent network of veins over abdomen occurs initially are some of the prodromal features of *Udara roga*. There are eight types of medical and surgical *udara rogas* mentioned in Ayurveda. - *Vatodara* (Accumulation of flatus), *Pittodara* (Hepatic causes), *Kaphodara* (Renal causes), *Sannipatodara* (exudative causes), *Pleehodara/Yakritodara* (enlargement of spleen and liver), *Baddhagudodara* (Intestinal obstruction), *Kshatodara* (Intestinal perforation) and *Jalodara*<sup>3</sup>, (Ascitis-Fluid in peritoneal cavity).

Progressive stages of *Jalodara* are described namely *Ajatodaka*, *Piccha* and *Jatodaka*. The main lines of treatment for *Jalodara* are *Nidana parivarjana* (avoidance of etiological factors), *Shodhana chikitsa* (purificatory therapy), *Shamana chikitsa* (Palliative therapy) and *Shastra karma* (Surgical measure).

Among eight types of *udara roga* *Baddhagudodara* and *Kshatodara/Chidrodara* are the surgical conditions while other types can be treated with difficulty by medicines.

If not cured with conservative line of treatment, surgical intervention i.e. *shastra karma* has been mentioned in *udar roga* in our classic texts [samhitas].

### Shastra karma: -

*Shalya chikitsa* performed in three different stages like

- *Purva karma*
- *Pradhana karma*
- *Paschath karma*.

In *pradhana karma*, *Acharya Sushruta* explained about 8 different surgical procedures under the topic called *ashta vidha shastra karma*. In addition to this he explained *yogyasootriyam* i.e., understanding the surgical procedures with practical knowledge. The recent advanced techniques are also developing based on the *ashtavidha shastra karma*.

### Astha vidha Shastra Karma according to Acharya Sushruta<sup>4</sup>.

It is composed of eight surgical procedures

1. *Chhedana* (excision)
2. *Bhedana* (incision)
3. *Lekhana* (scrapping)
4. *Vyadhana* (puncturing)
5. *Visravana* (drainage)
6. *Eshana* (probbing)
7. *Aharana* (extraction)
8. *Seevana* (suturing)

### SHADVID SHASTRA KARMA ACCORDING TO ACHARYA CHARAK:

पाटनं व्यधनं चैव छेदनं लेपनं तथा ।

प्रच्छन्नं सीवनं चैव षड्विधं शस्त्रकर्म तत् ॥५५॥

Surgical treatment is of six types such as<sup>5</sup>

1. *Paatanam* (incision)
2. *Vyadhanam* (puncturing)
3. *Chedanam* (excision)

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4. *Lepanam* (scrapping)
5. *Pracchanam* (scarification)
6. *Seevanam* (suturing)

These all techniques offer relief in various surgical adversity like; *Sadhyovrana*, *Nadivrana*, *Bhagandara*, *Vidradi*, *Granthi* etc.

**Table 1** *Shashtra Karma According to Different Acharya's*

CHARAK (6)	SUSHRUTA (8)	VAGHBHATA (13)
<i>Paatana</i>	<i>Chedana</i>	<i>Sushruta (8) + 5</i>
<i>Vyadhana</i>	<i>Bhedana</i>	<i>Uthpaatana</i>
<i>Chedana</i>	<i>Lekhana</i>	<i>Kuttana</i>
<i>Lekhana</i>	<i>Vyadhana</i>	<i>Mandhana</i>
<i>Visravana</i>	<i>Eshana</i>	<i>Grahana</i>
<i>Seevana</i>	<i>Aaharana</i>	<i>Dahana</i>
	<i>Visravana</i>	
	<i>Seevana</i>	

Above table no 1 shows *shastra karma* according to Acharya Charak, Sushrut and vagbhata.

### **PATANA SHASTRA KRIYA MENTIONED IN VARIOUS CONDITIONS-**

- **Management of Vrana:** The basic line of treatment for severe types of *Vrana* is conversion of *Dushta Vrana* into *Shuddha Vrana* & these includes various measures such as; control of vitiated doshas, management of inflammation, surgical intervention and controlling etiological factors which are responsible for the formation of wounds. *Vimlapana*, *Avasechana*, *Upnaha*, *Patanakriya*, *sodhana*, *Ropnam* and *vaikritapaham* are some traditional approaches used towards the management of *Vrana*.

- **Granthi:**

1. In *Pakwa Granthi*, the *patana karma* is done followed by *vrana shodhana* & *ropanachikitsa*.

2. *Patana chikitsa in Pakwa Kaphajagranthi*.
3. *Patanachikitsa in pakwa Mamsajagranthi*.

- **Arbuda:** *Patana karma* is done by protecting the *Marmasthana*.

### **UDAR PATAN SHASTRA KARMA: -**

*Udar Patana* is done in *udar rogas* where it is indicated. *Patana karma* (incision) is the basic step to start the operative procedure in following conditions.

*Baddha gudodara* (intestinal obstruction), *Chidrodara* (perforated intestine), *Dakodara* (Ascitis), Accidental injuries to *Ashaya* (abdomen) in which protrusion of omentum and its treatment is described. General surgeries like *Vridhhi* (inguinal hernia), *Niruddha prakasa* (phimosis) is also described in *Sushruta Samhita*.

### **Dakodara or Jalodara (Ascitis) Management: -**

तथा जातोदकं सर्वमुदरं व्यधयेद्विषक्।

वामपार्श्वे त्वधो नाभेर्नाडीं दत्त्वा च

गालयेत्॥१८९॥

विस्राव्य च विमृद्यैतद्वेष्टयेद्वाससोदरम्।

तथा बस्तिविरेकाद्यैर्म्लानं सर्वं च

वेष्टयेत्॥१९०॥

(Ch. chi. 13/189-190)

In all conditions of *udara* with accumulation of fluid, the fluid should be aspirated by inserting a cannula into the abdomen just below the umbilicus on the left side. *Vedhan karma* i.e., tapping is performed. *Vedhan* is done below left lateral to umbilicus, (4 *angula* from line of hair) with the help of *Vrihimukha shastra* (trocher), to the depth of thickness of the centre of thumb, and

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a *Nadi* (canula) is fixed to the trocher for removing fluid, and abdomen is bandaged tight after that. All fluid should not be drained in one day itself, as it will lead to complications, is mentioned clearly by *Acharya Sushruta*<sup>6</sup> which is applicable today also.

### **Baddhagudodara: (Intestinal Obstruction)**

*Baddhagudodara of udara* is caused by intake of small hair along with food, *Udavarta*, *arshas*, *antrasamurchana* (intussusceptions). *Vata prakopa* occurs suppresses *agni* and obstructs the movement of faeces, *pitta and kapha*. The symptoms are *adhmana* (abdominal distension), colicky pain in the regions of the heart, umbilicus and anus, appearance of peristaltic movements in the abdomen, appearance of stable, reddish and blue network of veins<sup>7</sup>. *Virechana* is indicated with precautions. In severe obstructions surgery may be required.

In intestinal obstruction, after proper examination of cause of obstruction— stone, hairs, faeces or other material are removed by making an incision below the umbilicus on left side, leaving four finger breadths from the central line, and four finger breadth of intestine, is taken out and reinserting it into its normal position, following suturing<sup>8</sup>, is the concept of *Acharya Sushruta* which is in practice today also as laparotomy.

### **Chidrodara/ Kshatodara (Intestinal Perforation)**

The intestine gets perforated (ruptured bowel) because of intake of sand, grass, pieces of wood, bone or nails along with food, intake of food in large quantity and clinically characterized by

abdominal distension below the umbilical region, stools with red, blue, yellow or slimy or *Kunapa Gandhi* (odour of a dead body), *hikka* (hiccup), *swasa* (dyspnoea), *kasa* (cough) and *trishna* (morbid thirst)<sup>9</sup>.

Intestinal perforation occurs when a hole forms all the way through small intestine or large intestine. It can be the result of trauma such as stab injuries or gunshot wound also due to number of different diseases like appendicitis, diverticulitis. The symptoms of perforation are severe abdominal pain, fever, nausea, vomiting, rectal bleeding sometimes heavy A perforated bowel is a surgical emergency and needs immediate treatment to prevent further complications such as infection or even death. This condition requires surgical intervention.

### **Surgical measures for *Badhodar and Chidrodara*: -**

इदं तु शल्यहर्तृणां कर्म  
स्याद्दृष्टकर्मणाम्॥१८४॥

वामं कुक्षिं मापयित्वा नाभ्यधश्चतुरङ्गुलम्  
मात्रायुक्तेन शस्त्रेण पाटयेन्मतिमान्  
भिषक्॥१८५॥

विपाट्यान्तं ततः पश्चाद्वीक्ष्य बद्धक्षतान्त्रयोः  
सर्पिषाऽभ्यज्य केशादीनवमृज्य  
विमोक्षयेत्॥१८६॥

मूर्च्छनाद्यच्च सम्मूढमन्त्रं तच्च विमोक्षयेत्  
छिद्राण्यन्तस्य तु स्थूलैर्दशयित्वा  
पिपीलिकैः॥१८७॥

बहुशः सङ्गृहीतानि ज्ञात्वा च्छित्त्वा  
पिपीलिकान्

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प्रतियोगैः [२] प्रवेशान्त्रं प्रेयैः [३] सीव्येद्वणं

ततः॥१८८॥

(Ch. Chi. 13/184-188)

Surgical intervention should be done by an expert surgeon. A proper incision is made on the left side of the abdomen about four fingers (7 to 8cm) below the umbilicus by an efficient surgeon. From this incision intestinal loops are drawn out and carefully looked for foreign substances causing *chidrodara or baddhodara*. Ghee is applied on the affected loop of the intestines. Then the foreign substances like hair and others are then removed from the intestinal loop. Any torsion or intussusception of the loops of intestines if present is opened. By the surgical procedure if large rend happens in the intestines, then edges of rend is anchored by making the small ants to bite and hold the edges together. Once the ants properly anchor the opposing edges of rend, the body of the ants is separated and thrown. Intestinal loops are then properly inserted into the abdomen and the incised area is sutured. Then *vranakarma*- wound management is done.

### Gynecological and Obstetrical Surgeries-

Surgical procedures like Extraction of *Muda garbha* (foetal obstruction), Caesarian section to save baby's life in *Mrutagarbha aharana* and management of *Sthana vidradhi* (breast abscess) have been described by *Acharya Sushruta*.

### Moodgarbha Management -

It is also considered as a medical emergency, where saving of mother's life is important, when foetus is dead <sup>10</sup> .*Acharya Sushruta's*

management of *moodgarbh* is somehow similar to the procedure of caesarian section of modern era <sup>11</sup> which is more advanced technique, and can save life of both mother and child. The application of the forceps in cases of difficult labour and other obstetric operations, involving the destruction and mutilation of the child, such as craniotomy, were first systematically described in the *Sushruta Samhita*. *Sushruta*, who advocates Caesarean section in hopeless cases of obstruction, lays down that, the instrument should be employed only in those cases where the proportion between the child and the maternal passage is so defective that medicated plasters, fumigations, etc. are not sufficient to affect a natural delivery.

### Indications of various surgical procedures: -

नाडीव्रणाः पक्कशोथास्तथा क्षतगुदोदरम् ।

अन्तःशल्यश्च ये शोफाः [१] पाट्यास्ते

तद्विधाश्च ये ॥५६॥

दकोदराणि सम्पक्का गुल्मा ये ये च रक्तजाः

|

व्यध्याः शोणितरोगाश्च विसर्पपिडकादयः

॥५७॥

उद्वृत्तान् स्थूलपर्यन्तानुत्सन्नान् कठिणान्

व्रणान् ।

अर्शःप्रभृत्यधीमांसं छेदनेनोपपादयेत्

॥५८॥

किलासानि सकृष्टानि लिखेल्लेख्यानि

बुद्धिमान् ।

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वातासृग्ग्रन्थिपिडकाः सकोठा

रक्तमण्डलम् ॥५९॥

कुष्ठान्यभिहतं चाङ्गं शोथांश्च प्रच्छयेद्विषक्

|

सीव्यं कुक्ष्युदराद्यं तु गम्भीरं यद्विपाटितम्

॥६०॥

इति षड्विधमुद्दिष्टं शस्त्रकर्म मनीषिभिः

|६१|

(Ch. Chi. 25/ 56-61)

Sinuses, ripened inflammations (i.e. suppurated ulcer or abscess), intestinal perforation, intestinal obstruction, having foreign body within and other similar conditions are incisable. Ascites, suppurated tumor and *raktaja gulma* (uterine tumor), blood disorders such as erysipelas, boils etc, are treated by puncturing. Wounds protruded with thick margins, elevated, hard, piles etc and other growths should be excised. The wise physician should scrape leukoderma, skin diseases and other such disorders which need scraping. The physician should perform scarification over *vatarakta* (nodular swelling), *granthi* (cysts) pimples, urticarial rashes, red patches, skin diseases, injured parts and swellings. Suturing should be done in pelvic, abdominal surgeries (i.e., laparotomy) etc. Thus, the scholars have mentioned six types of surgical treatments.

From ancient era, *Sushruta Samhita* and *Charak Samhita*, part of great text books of Ayurveda “*Bruhatrayi*” contributing primarily in the field of surgery and medicine respectively. *Shalyatantra* (general surgery) has an answer for many surgical problems. *Ashtavidha Shastrakarmas* is one of the approaches of *Shalya Chikitsa* mentioned by *Acharya Sushruta*, which involve eight surgical procedures based on different principles. *Ashta Vidha Shastra Karma* involve procedures such as *Chedana*, *Bhedana*, *Lekhana*, *Vyadhana*, *Visravana*, *Eshana*, *Aharana* and *Sivana*. These all techniques offer relief in various surgical conditions like, *Ashmari*, *Jalodara*, *Stana vidradhi*, *Visarpa*, *Pakva vidradhi* and *Sadyo Vrana* etc. *Acharya Charak* mentioned *shadvid shastra karmas* (six surgical procedures), *Patan shastra karma* is one of them. *Udara rog* is manifested as a result of aggravation of digestive and metabolic waste products because of *mandagni* i.e. defective digestive fire. *Udar Patan shastra Kriya* is performed in *Udar rog* which requires surgical interventions, such as *Chidrodara*, *Dakodar* (*Ascitis*), *Bhadgudodara*, etc. and also in some gynecological conditions such as *Moodgarbha*, *LSCS*, etc.

## CONCLUSION

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