

## A Review on Understanding of Guda Paranayatana

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**ABSTRACT:** Prana is breath of life or respiration, or spirit of vitality and it does the dharana of shareera. Pranayatana is such an area on injury of which death is going to occur. Guda is site of prana which gives the clue to the physician that implication of this region leading to life threatening complications, death or deterioration of quality of life disturbing the homeostasis of other surrounding structures. This may be significant reason for inclusion of arsha, bhagandara vyadhi under the list of mahagada by keeping the vitality of this region, acharya have cautioned the surgeons to be careful enough during surgical intervention.

### I. INTRODUCTION:

As life is maintained by prana, acharyas emphasized the concept of pranayatana by considering the vitality of certain areas in the body. Pranayatana is such an area on injury of which death is going to occur. Acharya charaka was the first person who briefly highlighted the importance of pranayatana. According to his view, pranayatana regarded as the vital components and dedicated a special chapter on pranayatana in Sutrasthana as “Dashapranayatana adhyaya” along with a little reference in Shareera sthana.<sup>1</sup>Where as Sushrythacharyahas given importance to precise point of prana under the marma.<sup>2</sup>The concept of pranayatana and marma are going parallel with little difference in the dimension. Guda is one among pranayatana and sadhyapranahara marma.<sup>3</sup>Sushruthahas briefed pramana of gudamarma as 4 angula<sup>4</sup> but pramana of guda as pranayatana is not mentioned. If structural status of gudamarma is considered, sushrutha upholds it as mamsa marma, Where as vagbhata refers it as dhamani marma. Marmaviddhalakshana of both leads to death.<sup>5</sup>the complications of anorectal diseases make the region more vulnerable.

### Ayurvedic literature review:

Pranayatana means the place where prana is residing. According to charaka, the ten places for

Prana are two Shankha, Trimarmas (Shiras, Hridaya and Basti), Kanta, Rakta, Shukra, Ojas and Guda.<sup>6</sup>Sushrutha highlights the 12 components of prana those are Agni, Soma, Vayu, Satva, Rajas, Tamas, Panchendriyas and bhutatma.<sup>7</sup>While defining the Marma he explains that prana resides in the constitution of Marma. Hence, any injury to marma specially causes danger to life. According to charaka the dashapranayatana are Murdha, Kanta, Hridaya, Nabhi, Guda, Basti, Ojas, Rakta Shukra and Mamsa.<sup>8</sup>

Guda is one of the koshtanga, developed from matruja bhava<sup>9</sup> & is location for apanavayu.<sup>10</sup>It is one among the karmendriya contributing in the list of 9 bahya srotas.<sup>11</sup>It is one among astamarma, injury to this leads death.<sup>12</sup>It is one among the 19 Sadya pranahara marma. On injury of guda instant death or death within 7 days is inevitable; it is having four Angula pramana and constituted by Mamsa or Dhamani.<sup>13</sup>

Within the pelvis, Guda is situated behind the basti, umbilicus, waist, scrotum, groins and penis. Basti, bastishiras, pourusha, vrushana and guda are interrelated and situated inside the cavity of the pelvis and pelvic bone.<sup>14</sup>Guda is the portion that is attached to sthulantra, which is five and half angula. In this, there are three valies situated at intervals of one and half angula in between them, and called as pravahani, visarjini and samvarini, together cover four and half angula in length and one angula above the anus. The area of one and half yava or in other words half angula above the line of hairs is known as gudoshta (lip of anus). The first vali (fold) is situated at one angula above the gudoshta. While charaka divided the guda into two parts i.e. uttaraguda and adhara guda according to chakrapani uttaraguda is the place where purisha is temporarily stored. Adharaguda is the place which helps in passing the purisha.<sup>15</sup>

### Anatomical literature review:

The perineum is a diamond shaped region positioned inferiorly to the pelvic floor between the

thighs. Its peripheral boundary is the pelvic outlet; Its ceiling is the pelvic diaphragm (the levator ani and coccyges muscles) and its narrow lateral walls are formed by the walls of the pelvic cavity below the attachment of the levator ani muscle. The perineum is divided into an anterior urogenital triangle and a posterior anal triangle. The urogenital triangle is associated with the openings of the urinary systems and the reproductive systems and functions to anchor the external genitalia. The anal triangle contains the anus and the external anal sphincter. In female median region between vaginal & anal orifice containing perineal body is extremely important in maintaining the integrity of the pelvic diaphragm & providing support to the pelvic organs. It may damage during difficult childbirth or cut inadvertently during episiotomy resulting into prolapse of the uterus, bladder, & rectum. The pudendal nerve and the internal pudendal artery are the major nerve and artery of this region.

The rectum is the distal part of the large gut. It is placed between the sigmoid colon above and the anal canal below. Situated in the posterior part of the lesser pelvis, in front of the lower three pieces of the sacrum and coccyx. Rectum in relation to peritoneum forms recto-vesical pouch (male), recto-uterine pouch (female).<sup>16</sup>

#### Clinical Review:

Sushruta explained the complications of arsha chikitsa as, when the wise physician handles by the application of kshara, agnikarma etc may result into tear in anus, burning sensation, fainting, fever, thirst, heavy bleeding etc. In the same manner when skillful physician will apply the caustic alkali, fire, sharp instrument into the anus that will produce impotence, swelling, toxicity, gurgling noise in abdomen, diarrhea and even death.<sup>17</sup> Charaka explains about the risk factors while treating the arsha by shastra karma, kshara karma, agnikarma are performed by learned, wise and experienced physician but even after doing so if it is handled by unskilled physician that may lead to causality.<sup>18</sup>

Bhangadara (Fistula in-ano) is considered under the heading of eight major diseases (Ashtamahagada) due to its notorious nature. Acharya sushruta has mentioned that all types of Bhangadara are difficult to treat.<sup>19</sup>

According to contemporary science, the major anorectal diseases include Hemorrhoids, fistula in ano, fissures, fecal incontinence, rectal prolapse, malignancy & anorectal abscesses. The

complications of these include fecal incontinence, reoccurrence etc make the region more vulnerable.

Transrectal ultrasound guided biopsy of the prostate is a gold-standard for diagnosing the prostatic cancer. One of the major complications includes significant rectal bleeding. Japan reported that the 5.9% of 212,065 men undergone rectal bleeding after the procedure and a large prospective series of prostatic biopsies showed the 8.2% of patients reported moderate to severe rectal bleeding after the biopsy.<sup>20</sup> Complications of colonoscopy vary from minor symptoms such as minor abdominal discomfort to more serious complications such as colonic perforation, cardiopulmonary arrest, or even death.<sup>21</sup> The most important and life-threatening complication of Double-contrast barium enema is rectal perforation. Rectal perforations to the intra-peritoneal or retro-peritoneal space are the most severe and life-threatening complications where immediate diagnosis and treatment are essential.<sup>22</sup> Colorectal perforations caused due to penetrating or retained foreign bodies, the insertion of foreign bodies into the anus end up with laprotomy.<sup>23</sup>

Obstetric injury is the most common cause of sphincter injury and pelvic floor failure resulting in lack of bowel control.<sup>24</sup> Complications of episiotomies include accidental extension into the anal sphincter or rectum, damage to the Bartholin's gland, unsatisfactory anatomic results such as skin tags, asymmetry or excessive narrowing of the introitus, vaginal prolapse, recto-vaginal fistula and fistula in ano.<sup>25</sup>

## II. DISCUSSION:

As per the basic definition of pranayatan, guda is a structure where prana is situated and guda is marma where mamsa, sira, snayu, asthi, sandhi and prana constitute the same. The dimension of guda as marma is limited to four Angula (8 cm) however Charaka has not referred the dimension for guda as a pranayatan, to ascertain its extent. But both the Acharya have same opinion that guda is a very vital and life threatening structural entity.

Ayurvedic classics state the anatomy of guda that, it is derived from matruja bhava, developed from essence of mamsa and rakta. In fact Mamsa and Rakta are one among the dasha pranayatana. This signifies that the guda region is constituted by those two pranayatana. Mamsa and rakta have increased the vitality of this region. That is why sushruta and vagbhata emphasized the

mamsa and dhamani as marmavastu respectively, constituting the guda marma. In the pathological point of view sushruta has emphasized the three vali named pravahani, visarjini and samvarini. Injury causing many clinical implications.

The anatomy of perineal region is very complicated because of similar resource of nerve & blood supply to the organs of this region & intimate relations with surrounding structures. This is understood by the description of astamarma such as sevani, shukravah, muska, guda, mutra praseka, mutravaha srotas and yoni. These all structures are intimately related to each other. Implications of any one of these structure disturbs the functions of other. In case of guda region pathologies related to the same are affecting the functions of others. Recent study of cancer of rectum said that it affects the libido of that person.<sup>26</sup>

The pudendal nerve may be damaged during the course of prolonged vaginal delivery consequent to stretching. 4 to 6% of women who have vaginal deliveries will suffer from fecal incontinence due to anal sphincter damage and associated neurological injury. Complications of episiotomies include accidental extension into the anal sphincter or rectum, recto-vaginal fistula and fistula in ano.<sup>27</sup>

In transrectal ultrasound rectal biopsy the middle and inferior rectal arteries, and dense sub mucosal venous plexus are susceptible to rectal bleeding. In double-contrast barium-enema retroperitoneal perforation of the rectum occurs. Mehmet Yildirim et al reported a case of retroperitoneal perforation of the rectum during double-contrast barium-enema examination; here patient got peritonitis due to barium enema. Then the patient died 20 hours after the surgery due to a septic shock. In this case because of covering of peritoneum over the rectum the peritonitis has spreaded.<sup>28</sup> This proves the vitality of rectum.

Low level fistulae open into the anal canal below the anorectal ring. High level fistula: fistulae open into the anal canal at or above the anorectal ring. Low level fistula can be laid open without fear of permanent incontinence as the anorectal ring is not disturbed, where as in case of high level fistula one must diagnose the case before operation & it is treated by stages, lest damage to the anorectal ring may cause permanent incontinence.<sup>29</sup>

During surgery for prolapsed of rectum if dissection is not carried out in the proper plane the pelvic sympathetic and parasympathetic nerves run along the rectum gets injured leading to bladder

dysfunction, impotence, or retrograde ejaculation. Tearing of the presacral veins occurs during abdominal surgery for prolapsed of rectum; this can lead to a presacral hematoma or to torrential bleeding. The lists of diseases resulting due to complication of rectal prolapse are life threatening, consequently affecting quality of life.<sup>30</sup>

The supralavator abscess is reportedly less common & most serious. If drained through levator ani muscle through ischiorectal fossa a complex fistula can result and recurrences are common. As puborectalis muscle is a part of levator ani, on injury to which incontinence of feces occurs.<sup>31</sup>

The conditions like fissure in ano are very painful, in which irritation of internal sphincters gives rise to severe spasm. In such situations if surgeon tries to dilate it or anus then patient may undergo neurogenic shock & sometimes dies. In case of external piles due to thrombosed veins excruciating pain is experienced due to which quality of life of person is deteriorates. These above conditions specify the vitality of this region.<sup>32</sup>

The bacterial infection of this region invites septicemia (particularly by gram negative organism), comparatively management of this condition is difficult. By Debasis Naik et al reported a case of abdominal wall abscess arising as a complication of Seton procedure - patient went into septicemic shock and expired. Blood culture report revealed Gram negative bacilli and anaerobes.<sup>33</sup>

Complications of colonoscopy vary from minor symptoms such as minor abdominal discomfort to more serious complications such as colonic perforation, cardiopulmonary arrest, or even death.

The major disorders like Hemorrhoids, fistula in ano, fissures, fecal incontinence, rectal prolapse, malignancy & anorectal abscesses are giving rise to many life threatening complications. These are to be managed meticulously.

### III. CONCLUSION:

Prana is a vital energy needed for sustain the life. When prana is crippled it affects the quality of life. There are ten seat of life out of which guda is one among them. Now a day due to sophisticated medical technology the mortality rate of these disorders has come down. However comorbidity has become challenge for medical paternity. The morbidity due to these disorders has affected the quality of life in terms of physical & mental status. That is why guda is treated as pranayata.

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