

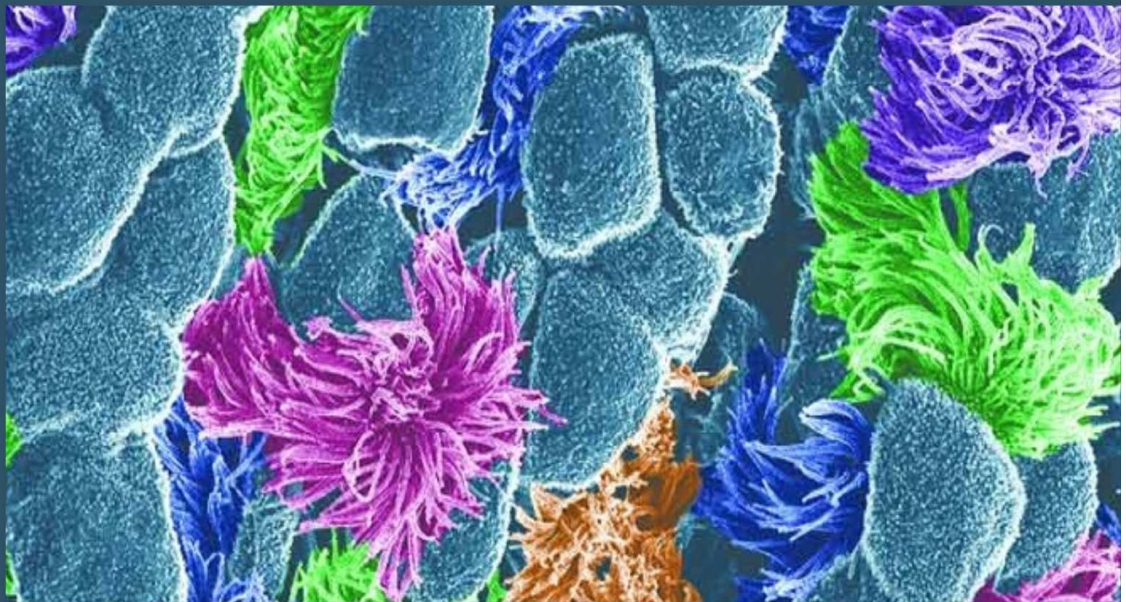
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## ANATOMY AND PHYSIOLOGY OF ANAL CANAL AND RECTUM (GUDA PRADESH) IN AYURVEDA

DR. SANJAY SINGH CHAUHAN\*

### *Declaration*

The Declaration of the author for publication of Research Paper in The Indian Journal of Research Anvikshiki ISSN 0973-9777 Bi-monthly International Journal of all Research: I, *Sanjay Singh Chauhan* the author of the research paper entitled ANATOMY AND PHYSIOLOGY OF ANAL CANAL AND RECTUM (GUDA PRADESH) IN AYURVEDA declare that, I take the responsibility of the content and material of my paper as I myself have written it and also have read the manuscript of my paper carefully. Also, I hereby give my consent to publish my paper in Anvikshiki journal, This Research paper is my original work and no part of it or its similar version is Published or has been sent for Publication anywhere else. I authorise the Editorial Board of the Journal to modify and edit the manuscript. I also give my consent to the Editor of Anvikshiki Journal to own the copyright of my Research Paper.

### *Abstract*

*It is very necessary to have knowledge of anatomical relations and structures of guda (anal canal), because disease bhagandara is mainly related with guda. Thus anatomical structure of guda assumes prime importance. Though the systematic description regarding the anatomy of guda is not available at one place in any of our ancient literature, but a little light can be shed in this direction by collecting references scattered in various chapters.*

**Key Word :** Guda, Uttar guda, Adhar Guda, Gudostha, Guda Marma, Srotas and Guda vali.

**Formation of Guda (Anal canal):** Embryologically guda is supposed to be originated from *matrija bhava* of garbha.

असृजः श्लेष्मणश्चापि यः प्रसादः परो मतः ॥

तं पच्यमानं पित्तेन वायुश्चाप्यनुधावति ॥26॥

ततोऽस्यान्त्राणि जायन्ते गुदं बस्तिश्च देहिनः । ( s.s. sh 4/26)

The intestine, anus and Bladder of the fetus are formed from the best parts of the blood and *kapha* after being digested by *pitta* along with *vayu*.

**Length of Guda (Anal canal):** तत्र स्थूलान्त्रप्रतिबद्धमर्धपञ्चांगुलं गुदमाहुः,

Length of guda is 4½ angula.

**Location of Guda (Anal canal) :** It is a structure, which is related to the *sthula antra* (large intestine).

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### Parts of Guda

*Guda* can be divided into three parts:

1. *Uttara Guda*
2. *Adhara Guda*
3. *Gudostha*

*Uttarguda* is that part in which feces is stored or collected. *Adhara guda* is that part, which helps in expulsion of feces. *Gudostha* is the terminal portion of *guda*, 1 *angula* inside the hairy region in buttock. From this we can conclude that

TABLE 2.1 Parts of Guda

<i>Uttara guda</i>	Upper portion of rectum and sigmoid colon.
<i>Adhara guda</i>	Lower portion of rectum and anal canal.
<i>Gudostha</i>	Anal orifice.

तस्मिन् वलयस्तिस्रोऽध्वर्धागुलान्तरसंभूताः प्रवाहणी विसर्जनी संवरणी चेति चतुरंगुलायताः, सर्वास्तिर्यगेकांगुलोच्छ्रिताः।।5।।

शंखावर्तनिभाश्चापि वर्णतः संप्रकीर्तिताः।।

रोमान्तेभ्यो यवाध्यर्थो गुदौष्ठः परिकीर्तितः।।6।।

प्रथमा तु गुदौष्ठादंगुलमात्रे।।7।। (s.s.ni 2/5,6,7)

Inside the *guda*, on the lateral walls, there are 3 lateral folds, separated by a distance of 1 *angula*. These are also spiral like a conch. They have also been described to be of the color like that of the palate of an elephant.

The first fold is *Samvarani* which is placed 1 *angula* proximal to the *gudostha* and other folds are placed one above each other.

*Gudostha* clearly indicates the anal verge which placed inside the line of hairs, *samvarani* placed 1 *angula* above the *gudostha* and can be correlated to the zone of sphincter muscles especially the area of external sphincter, *Visarjani* placed 1 *angula* above *samvorani* is indicative of ano-rectal ring and *Pravahani* placed 1 *angula* above *visarjani* is indicative of the inferior Houston's valve or the rectal ampulla.

TABLE 2.2

<i>Gudostha-</i>	Anal verge
<i>Samvarani</i>	Part of external anal sphincter
<i>Visarjani-</i>	Anorectal Ring
<i>Pravahani-</i>	Inferior Houston's valve or the rectal ampulla.

*Pravahani* helps in straining and thus helps to initiate the act of evacuation, *visarjani* helps in the downward movement of feces and *samvarani* controls the final timing of evacuation of the excreta.

### Vascular Supply to Guda(Anal Canal )

*Sira* carry *rakta*, *pitta*, and *kapha* etc. There are 34 *siras* in the region of *kostha* of which 8 *siras* are responsible for carrying *vata* and maintenance of its normal functions. These are situated in *guda*, *medhra* and *shroni*.

*Dhamani*, which moves downwards to carry *apan*, *vata*, *mutra*, *shukra* and *artava* to their respective seats or organs like *pakvashaya*, *kati*, *guda*, *basti* and *medhra*. They also control defecation process.

*Gudapeshi*: Three *peshis* are present in *guda*.

*Gudasthi*: In pelvic region, there are five bones out of which four are in *guda*, *bhaga* and *nitamba* while one in *trika*.



*Gudsandhi*: In *guda samudha* type of *sandhi* is present.

*Gudmarma*: *Sushruta* describe *guda* as a *sadya pranahara* type of *mans marma*.

*Srotasa*: *Sushruta* considered *guda* as a *moola* of *purishwaha srotasa* as well as *vahya srotas*.

*Pranayatana* : *Guda* is among the *dasha pranayatana* described by *Charak* and *Vagbhatta*.

#### *Kriya Sharir of Guda (Physiology)*

*Guda* is one of the *karmendriya* and its function is to excrete the *mala* from the body. *Guda* and *pakvashaya* are the main seats of *apan vayu*, which is the main driving force for the expulsion of feces. Any imbalance in the functioning of *apan vayu* leads to the disease of *guda* and *vasti*.

The description of the process of defecation has not been clearly described in any of the *Ayurvedic* classics. Based on internal structure of *guda* described by various authors, *Gananath Sen* describes that *pravahani* helps in compressing and pushing the feces downwards, *visarjani* relaxes during this process and thus allow the contents to move further and *samvarani* controls the final act of evacuation. Thus *apan vayu* and the three *vali* are solely responsible for initiating and completing the act of defecate

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- A.H.U. 28/1-2
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