

## CRITICAL ANALYSIS OF ETIOPATHOGENESIS OF YAKRUTODARA

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## ABSTRACT

*Udara* is a disease presenting with the features of enlargement of abdomen. *Yakrutodara* is one of such manifestation in *udara*, if neglected may lead to many complications such as *jalodara*. *Dusta rasa, rakta* is the substrate of the illness, clinically presenting with features related to *ambuvahasrotas* i.e abnormal accumulation of *jaleeya dhatu* in *shareera*.

**Keywords:** *Yakrutodara, Udara, rakta ambuvahasrota, jaleeya dhatu.*

## INTRODUCTION

*Udara* is one among the *ashtamahagada*<sup>1</sup>. From the origin of the illness it is difficult for management. *Udara* is a disease presenting with the features of *ofkukshi adhma-na* (enlargement of abdomen) *Karapada shophya* (oedema in the limbs) and *Mandagni* (gross impairment in appetite and digestion)<sup>2</sup>. *Yakrutodara* is one among *ashtodara*<sup>2</sup>.

The cardinal feature of *yakrutodara* is *yakrut vriddhi* (hepatomegaly). Progressive *yakrut vriddhi* is usually seen. On palpation it is hard to touch just like the shell of the tortoise. The size of the *yakrut* may vary at times it may even cover most part of the abdomen. Apart from this, the *samanya lakshana* of *udara* is equally important such as *udara utseda* (distension of abdomen), *krushagatra* (emaciation) etc. *Yakrut vriddhi* may be seen in other types of *raktavaha srotodusti vikara* such as *kamala, raktapitta* etc. Hence the cardinal features of *udara* and the cardinal features of *yakrutodara* are essen-

tial for the diagnosis. *Yakrutodara* is a disease involving many *srotas/* multi system. Hence multi systemic manifestations are produced. In the *samprapti* it is stated that *annarasa* along with abnormally retained bodily fluid will enter the *udara*. In the diseased person *annarasa* continuously pours into the *udara*. Hence *rasa kshaya* takes place and because of *rasakshaya, preenana* of *dhatu* will not take place properly resulting in all *dhatu kshaya* later in the course of illness. There are many etiological factors responsible for the manifestation of *Yakrutodara*. An effort has been made to understand each factor in relation to disease manifestation for better clinical practice.

## NIDANAS OF YAKRUTODARA

*Yakrutodara/pleehodara* is a type of *Ashtodara*. Hence it is essential to understand the *nidana* of *udara* and they are categorized mainly into two groups – *Dosha hetu* and *vyadhihetu*.

*Dosha hetu* are those they vitiate the *dosha*

in specific and are not able to produce a specific *vyadhi*. The *nidana* like *atiushna*, *ati rooksha ahara*, *ati lavana*, *ati kshara*, *ati amlarasayukta ahara*, *ati vidahi ahara*, *viruddha ahara sevana*, *asuci ahara sevana*, *klishtaanna sevana*, *amakara ahara* etc *vega vidharana*, *pancakarma vibhrama* and *mithya aacaara* like, *poorvajanma kruta paapakarma* results in *dosha kopa*.

*Vyadhi hetu* are the etiological factors which are either *pradhanika hetu* or *nidanarthakara roga* by nature. *Nidana* like the *garavisha*, *srotodusti (dhatupradoshaka) hetu*, *aantrasputana bhedana hetu* like *sankshobha*, *ati sanchita dosha*, *sakrut rodhakara hetu* such as *arsha*, *baala* etc are *pradhanika hetus* or *pleeha*, *arsha*, *grahaneeroga* are *nidanarthakara hetu*.

- *Atiushna ashana*: *Usha guna* is predominant of *Agni mahaabhoota*. It has *Teja guna* and is *Teekshana* in nature. It is *Pittavardhaka*. If taken in excess quantity for longer duration it aggravates the *Pitta* and it causes the *Dhaatu paka* in the *yakrut* and leads to the diseases such as *kamala* further indulging *nidana* may lead to *yakrutodara*.
- *Atilavana ashana*: *Lavana rasa* has the qualities like *deepana*, *kledana*, *bhedana*, *teekshna*, *sara*, *vikasi*, *snigdha*, *ushna*, *avakaashakara*, *kapha vishyandana*, *pitta prakopaka*, *raktavardhaka* etc. Thus it can be said, that *atilavana rasa sevana* has adverse effect on the *shareera* by vitiating the *sweda*, *ambuvaha* and *pranavaha srotodusti* and leading to the *shotha*.
- *Ati kshara ashana*: *Ksharas* generally produce *teekshna*, *ushna*, *laghu*, *rooksha*, *kledi*, *pakta*, *vidharana*, *dahana*, *deepana* and *pitta vardhana*. It aggravates the *Pitta* and it causes the

*Dhaatu paka* in the *yakrut* and leads to the diseases such as *kamala* and further indulging *nidana* may lead to *yakrutodara*.

- *Vidahi ashana*: It aggravates *pitta dosha* and causes *dushti* of *raktavaha srotomula* and leading to the *shitilata* of the *dhatu* in *yakrut* further indulging *nidana* may lead to *yakrutodara*.
- *Amla ashana*: *Amlarasa* is told as *laghu*, *ushna*, *snigdha*, *pittakara*, *raktadooshaka* etc. The *mahaabhoota* combination of *amlarasa* there is difference of opinion among *Acharyas*. *Charaka* and *Vagbhatta* opine it as having *Jala* and *Agni mahaabhoota* and *Sushruta* opines it as having *Prithvi* and *Agni mahaabhoota*. *Sushruta* classified *Amla rasa* in *Agneya varga* having *Ushna guna*. When taken in excess quantity for longer period it causes *pitta vriddhi*, vitiates *rakta*, makes decomposition of the *Mamsa dhatu* and brings about *Shithilata* and *Krushata* in the *yakrut*.
- *Gara ashana*: It causes *tridosha vardhana* and *raktadooshana* later leading to the *mala sanchaya* in the *yakrut*. After a prolonged period it leads to *yakrutodara*.
- *Mithya samsarjanaat*: It leads to the *jataragni dushti* later leading to the *mala sanchaya* in the *yakrut* leading to *yakrutodara*.
- *Rooksha ashana*: It aggravates *vata* and causes *rookshana* in the *dhatu* of *yakrut*.
- *Viruddha ashana*: It results in *tridosha prakopa* resulting in different disease. It is one of the important *viprakrista nidana* for all the disease including *udara*.
- *Asuchi ashana*: It results in *agnidushti* and leading to *ama* formation and re-

sults in *srotorodha* in *sweda*, *ambu* and *pranavaha srotas* precipitating *udara*.

- *Pleeha roga*, *Arsho roga*, *Grahani roga*: In all these diseases, *agnimandya* is a common feature. So if they are left untreated for long duration they can result into *udara* as *agnimandya* is a major triggering factor for the manifestation of *udara*.
- *Karma vibhramaat*: Here it refers to *panchakarma apacharat*, where *atiyoga* or *ayoga* of the *karma* had to be considered. As a result of that *vata kopa* and later *agnimandya* get manifested. This also leads to the accumulation of *prakupita doshas* and *mala* which is supposed to be removed.
- *Malamootra vega dharana*: *Vegadharana* results in *apanavata dushti* which can produce *agnimandya* leading to *udara*.
- *Ksobha janaka aahara*: These *aharaas* are having the nature of aggravating *vata* and causes *dushti* in *yakrut*.
- *Adhika drava padarta sevana*: It cause the vitiation of *ambuvaha srotas* and *agni*.
- *Aantra sputana, Bheda*: These in future leads to *Chidrodara*.

From the above description, it is very clear that *dosha prakopaka hetu* are likely to vitiate *tridosha* in the body and it is not specific of any particular illness even *udara*<sup>3</sup>. Among the *vyadhi hetus*, some of them are very specific of *Baddagudodara*, *Chidrodara*, *Pleehodara*. The diseases such as *Yakrut roga/Pleeha roga* ultimately results in *Pleehodara / Yakrutodara*.

*Yakrut* and *Pleeha* are the *raktavaha srotomoola*<sup>4</sup> and hence *raktavaha srotovikara* like *kamala* and the variants of *kamala* should also be considered in this context<sup>5</sup>.

## YAKRUTODARA VISHISTA HETU

Owing to the *samprapti* of *Yakrutodara*, the disease may manifest in two ways clinically i.e *chyuta* and *achyutha Yakrutodara*. To support this, the *nidana* can be categorized into two. One which is responsible for *stanat-chyuthi* of *Yakrut* and the other causes *Yakrut vruddhi* there by *Yakrutodara*.

## YAKRUTODARA BY STANA-CHYUTHI (SRAMSANA)

A person who has taken excess quantity of food if he indulges in excessive and violent physical activities will result in *vata prakopa*. Here *ati-ashitasya* is the *vyabhicharihetu* for the *stanatchyuti* in *Yakrutodara*. *Atisankshobhana*-excessive violent physical activity, *atiyana*-excessive travelling, *atichesta*- excessive physical activity, *ativyavaya*-excessive sexual intercourse, *atikarma (atikayati viruddha chesta)* dangerous physical maneuvers. *Ati bharaharana*-Carrying heavy weights, *adhva gamana*-excessive walking, *ativamana (prachhardana)*-bouts of emesis/vomiting all these acts as *Pradhanika hetu*. A susceptible individual, by doing excessive physical activities may develop *sthanat-chyuti* of any *avayava* even *Yakrut/Pleeha*. But the violent physical activities will definitely result in *vata prakopa*.

## YAKRUTODARA BY VYADHI-KARSHANA

*Yakrutodara* may be a sequel of any of the *vyadhi* a person suffering from. This particular view is supported by going through the *samprapti*. In the *samprapti* of the *achyuta yakrutodara* it is stated that *sonitha vruddhi* is likely to result in *Yakrut vruddhi*. This *sonitha vruddhi* may be because of *rasa vaha* or *raktavahasroto vikara*. *Chakrapani* said even *mamsadi dhatu* can also bring about *sonitha vruddhi* and there by *vruddhi*

of Yakrut. *Srotasam dooshanat* is one of the *pradhanika hetu* mentioned in the *samanya nidana* of *udara*, i.e *rasa*, *rakta*, *mamsa*, *meda srotodushtijanya vikara* may bring about *Yakrutodara*<sup>6</sup>.

Manifestation of *vyadhi* may be in any of the *trividha roga marga*. When we look into *rasa* and *rakta pradoshaja vikaras* some of the diseases are pertaining to *bahya roga marga*, some in *madhyama roga marga* and some in *abyantara roga marga* whereas *madyama* and *abyantaragata vikara* like *hridroga*, *kamala*, *pandu* which are likely to produce *Yakrutodara*.

*Rasa pradoshaja vikara* like *hridroga*, *pandu roga*, *jwara* are likely to produce *Yakrutodara*. The *raktapradoshaja vikara* such as *kamala* and variants of *kamala* such as *kumbha kamala*, *haleemaka*, *alasa*, *lodara*, *panaki* are likely to result in *Yakrutodara*. *Mamsa* and *medo pradoshajavikara* like *granti*, *arbuda* may result in *Yakrutodara*.

*Yakrutroga* in the form of *kamala* may be seen in *vishamajwara*, *sannipatajwara*. *kaphaja pandu* and *asadhya pandu* is characterized by *sarvadaihika shotha*. *Shotha* in the *madya kaya* with *krusangata* is the *lakshana* of *asadya pandu*<sup>7</sup>. *Sarvadaihika shotha* with *swasa*, *kasa*, *panduta* are the *lakshanas* of *kaphaja pandu*<sup>8</sup>.

*Kamala* particularly *koshtasrita kamala* when not treated likely to progress to *kumbakamala*. The *kumbakamala* is characterized by *sarvadaihika shotha* and with *udarotseda*. The *kumba kamala* is a *avasthabheda* of *kostasritakamala*, also characterized by bleeding from different orifices such as mouth, nose, eyes, anus and with blood vomiting<sup>9</sup>.

In the present day practice, *Yakrutodara* is commonly seen with chronic alcoholism. Alcoholism is likely to produce three mani-

festations in relation with liver. They are hepatic steatosis (fatty liver), alcoholic hepatitis and alcoholic cirrhosis<sup>10</sup>. The descriptions of *yakrut* simulates with that of liver undoubtedly. *Yakrut* is *raktavahasrotomula*. *Madya sevana* is one of the *raktadushti nidana* explained by *Charaka*.<sup>11</sup>

#### **YAKRUTODARA SAMPRAPTI:**

*Chakrapani* clarified the mode of manifestation of *Yakrutodara*. It manifests in two ways. *Sthanat chyutijanya Yakrutodara* and *Vyadhi karshanajanya Yakrutodara*. He has given the names *chyuta* and *achyuta yakrutodara*. Accordingly, the causative factors have been mentioned<sup>12</sup>.

#### **YAKRUTODARA BY STHAANATCHYUTI:**

*Atiksankshobha* etc etiological factors suggest the *baahya nidana* are related with *vi-hara* and *agantu nidana*. *Atisankshobhadi* results in *abhighata* to *shareera* and if it happens to *udara pradesha*, there is a possibility of *sthanat chyuti of yakrut / pleeha*. Because of the *agantu hetu*, *vyadhi* develops all of a sudden and simultaneously *dosha kopa* develops. *Abhighata*, *atisankshobha* etc results in *vata prakopa*. *Sramsana* is one of the *vata prakopa lakshana*. *Sramsana* refers to *sthanat cyuti* (prolapse/dislocation). Here *sthaanat chyuti* is both *samprapti* and *lakshana* of the illness. By now the *yakrut/pleeha* will be palpable and that condition is called as *yakrutodara/pleehodara – sthaanat chyuta*.

#### **YAKRUTODARA-VYADHIKARSHANAJANYA (STHAANAATACHYUTHA)**

*Yakrut vruddhi/udara* may also take place by *sonitha vruddhi*. *Yakrut –pleeha* are the abord of *raktavahasrotas*. When *vikruta sonitha vruddhi* takes place it is likely to vitiate the *moola-yakrut/pleeha*. The *dusta*

*sonitha vruddhi* takes place because of *rak-tadustikara hetu* and *dusti* of other *srotas*. In the *samprapti* of *achyuta yakrut vruddhi* it is clearly mentioned *rasa* and *raktavaha sroto dusti* results in *rakta vruddhi* there by *yakrutodara*. *Chakrapani* has added *mamsvaha srotodusti* responsible for *rakta vruddhi*.

*Rasa pradoshaja* diseases like *jwara*, *pandu*, *hridroga* are likely to produce *shotha*, *kamala* and *yakrut roga*. Going through the descriptions of *pittaja*, *kaphaja*, *sannipataja*, *vishama* and *dhatugata jwara*, very frequently we get *lakshana* of *kamala*, *pandu*, *shotha*, *raktapitta* etc. *Susrutha* while explaining the *nidana* of *kamala* says, this disease may manifest after *pandu* or *anyaroga*<sup>13</sup>. That means a patient suffering from *pittapradhana rasapradoshaja* *vikara* likely to develop *pittapradhana raktapradoshaja* *vikara*. *Chakrapani*, while explaining the reasons for *dhatvantarata* of *vyadhi* opines that same *dosha* is responsible for *dhatvantarata* of the *vyadhi*. Hence the *pittapradhana jwara* may act as *nidana* for *pittapradhanavikara-kamala*.

In this way, *rasapradoshaja* *vikara* acts as *nidana* for *raktapradoshaja* *vikara* and in the due course it may result in *raktavaha sroto mula vikruti* there by *yakrutodara*.

*Kamala* particularly *kostasrita kamala* when not treated likely to progress to *kumbhakamala*. *Koshtasakhasrita kamala* is *bahupitta kamala* predominantly affecting the *raktavahasrotomula* and *raktavahasrotas*. The *kumbhakamala* is characterized by *sarvadaihika shotha*, *raktasrava* from different orifices such as *nasa*, *akshi*, *guda* and with *raktachardi*. *Udara* is the variant form of *shotha*. The *adhista* of *pitta pradhana shotha* is *madyakaya* i.e. between *ura* and *pakvashaya*. Hence *kamala* - a *bahupitta*

*vikara* may progress to *kumba kamala* and may lead to *yakrutodara*.

*Arbuda* and *grantiare* primarily a disease of *mamsavaha srotas*<sup>14</sup>. *Arbuda* is characterized by abnormal growth. The abnormal growth is mostly circular, firm/fixed to the underlying tissue, deep seated with or without pain, continuously growing but usually do not get necrosed. Apart from this, it is likely to manifest in any place in the body, any *srotas* in the *sareera* and likely to produce secondaries. The *dushta doshais* likely to vitiate *mamsa* and *rakta* in the pathogenesis. From this description it is evident that *arbuda*, a *mamsavaha srotodusti* *vikara* is a tumor pathology and being fixed to the tissue continuously growing in size and produce secondaries in any part of the body. If secondaries are seen the condition is usually *asadhya*. If *arbuda* manifest in *yakrut* or secondaries, then *yakrut vruddhi* takes place and results in *yakrutodara*.

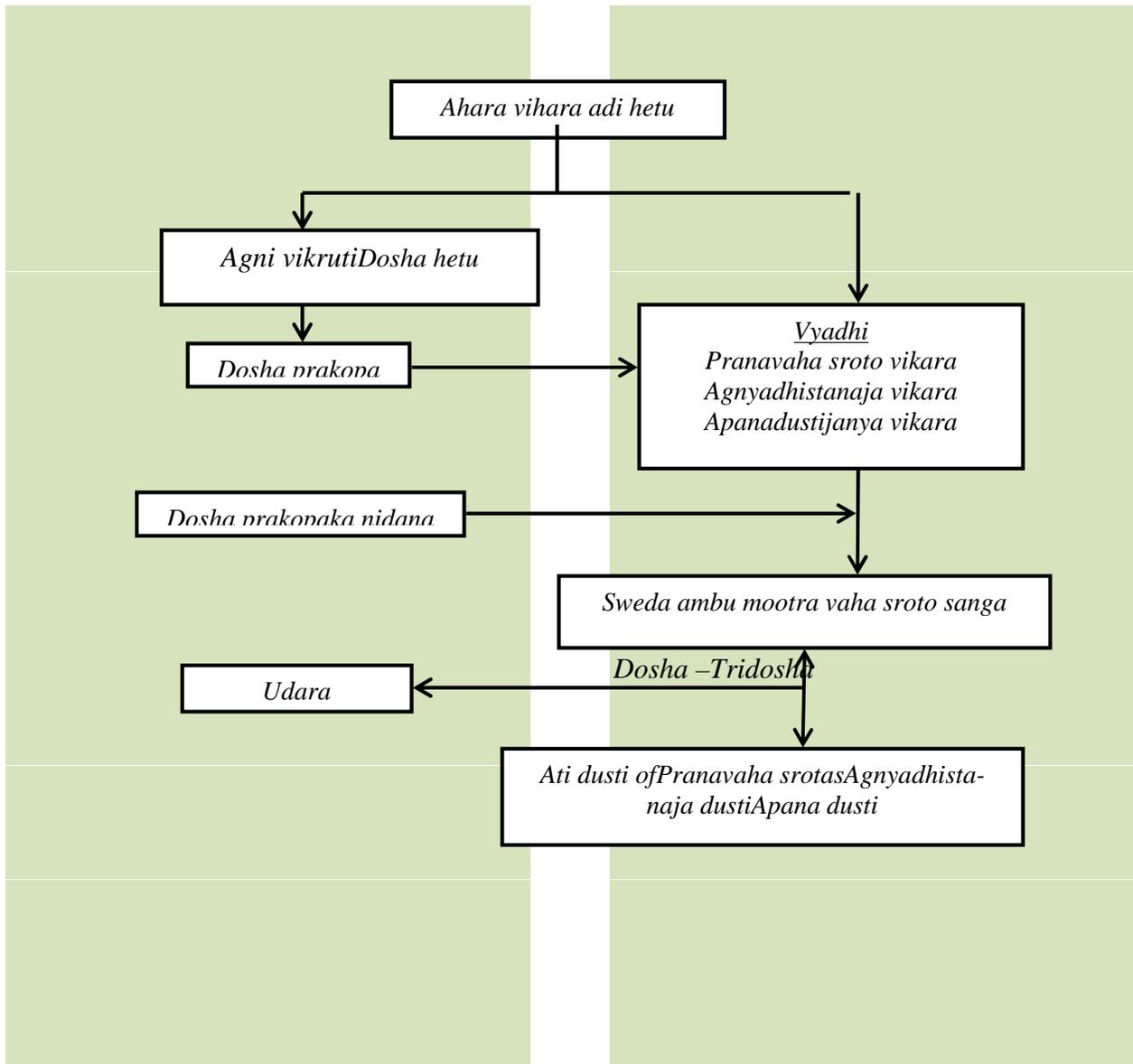
*Madyapana* is considered as a *nidana* for *raktavahasrotodusti*. The qualities of *madya* like *ushna*, *teekshna*, *amla*, *vyavaayi*, *vikasi*, *vishada* and *aashu* are known to bring about *pitta prakopa*. *Pitta* and *rakta* are having *asryaasrayi bhava*. When *pitta* gets vitiated *rakta* is likely to be vitiated and there by *raktavahasrotas* gets vitiated. In this way the qualities of *madya* is likely to vitiate *raktavahasrotas* and its *moola* i.e. *yakrut*.

Till now the process of *raktavahasrotodusti* and *yakrut vruddhi* has been explained. This stage of the disease is called as *ajatodaka avastha* of *udara*. The process of collection of *jaleeya dhatu* in the *udara* is as follows.

A person suffering from *pranavahasrotovikara*, *agni adishistana*, *apanav-aikruti* by indulging in *aahara vihaara sambandhi nidana*, further *dusti* of the *dosha*

and related *dhatu* and *avayava* takes place. This results in *sanga* of *swedavaha srotas*, *ambuvaha srotas* and even *mootravaha srotas*. Whenever there is obstruction in the *sweda*, *mootra* and *ambu vahasrotas*, the fluid either *sara* or *kitta roopi* will be converted into *jaleeya dhatu* itself. This *jaleeya dhatu* a mixture of *sara* and *kitta* will be brought primarily to *koshta*. *Aahara rasa* along with the abnormally collected *jaleeya dhatu* in the *koshta* will be percolated into the *udara* by the influence of *dushta vata*, just like the water percolates in a new pot. Now the fluid starts to collect in the *udara*.

This fluid is called as *pichha* and this stage is called as *pichhotpatti avastha* of *udara*. The *pichha* collected in the *udara* will be like *baktamanda* i.e. rice gruel, probably refers to higher consistency and specific gravity when compared to water. In this way *udara utseda* takes place and flanks will be filled with fluid, abdomen looks round-*mandala udara*. Gradually fluid tends to accumulate further and this stage is called as *jatodaka avastha*. Now the abdomen looks like a pot-*udakapoorna druti*<sup>15</sup>.



Vata- Prana, Vyana, Apana, Samana  
Pitta – Pachaka, Ranjaka  
Kapha- Kledaka, Avalambaka  
Dooshya –  
Dhatu-Rasa, Rakta, Mamsa, Ambu  
Upadhatu- Twacha  
Shareerika mala-Mootra, Pureesha  
Dhatu mala-Sweda  
Agni-Jataragni, Dhatvagni  
Ama – Jataragni, Dhatvagni mandya janya,  
Doosharoopi ama  
Srotas - Prana, Annavaha, Swedavaha, Am-  
buvaha, Rasavaha, Raktavaha, Mamsavaha,  
Mootra  
Udbhavasthana-Amashayotha  
Sancharasthana-sira  
Adhistana-Udara, Twacha(twak mamsanta-  
ram)  
Vyakta sthana- yakrut, pleeha, udara, sar-  
vashareera  
Rogamarga-Abhyantara

## CONCLUSION

Abnormal accumulation of *jaleeya dhatu* in *udara pradasha* is considered as *udara.Yakrutodara* is one among the *ashta udara*, clinically suspected when there is palpable *yakrut* along with the cardinal features of *udara*. *Sthanat chyuta* and *achyuta* are the two variants having their own specific etiological factors. Excessive physical activity resulting in injury and dislodgement of *yakrut* is the etiopathological processes of *sthanat chyuta- yakrutodara*. *Rasa pradoshaja vikara, raktapradoshaja vikara* and *mamsadi dhatu pradoshaja vikara* may lead to *stanat achyuta- vyadhikarshanajanya yakrutodara*.

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