

AYURVEDIC IDENTIFICATION AND CONCEPTUAL ANALYSIS OF CANCER

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ABSTRACT: *Modern oncology is a rapidly growing area in medicine. Cancer is a disease diagnosed on the basis of cellular changes hence objectivity takes the lead. Clinical observation, detailed examination and some feasibility studies were conducted in Ayurvedic methods to understand and identify cancer systematically. Abdominal presentation as tumour is discussed since it is one of the major area for clinical diagnosis of cancer. More than 100 cases were followed in each type at all stages to understand the natural history and clinical behaviour. After careful study, the Ayurvedic diagnosis with possible aetiologic association has been arrived at and discussed. Three main classification has been made and presented separately. Visha concept of Ayurveda has been very closely found to be associated in malignancy.*

INTRODUCTION

Ayurveda – age old Indian art of health and medicine, and cancer – a disease about which the medical science has developed considerable experience only recently, are meeting each other at a time when medicine is in its frontiers. Just as the cancer cell biology has contributed to development of basic biologic understandings, the clinical study of cancer by an *Ayurvedic* physician leads to immense introspection in to the entire knowledge base built on textual basis. The experience is unique in many aspects and thus has opened a new dimension which needs to be examined in detail leading to proper understanding of the disease. In the absence of any previous experience and lack of guidance and also because of paucity of literature, it was like endeavoring a new venture. Following the advice of *Charaka* (1) promptly, the patients were studied with respect to their clinical parameters and detailed analysis was carried out with the help of texts. This paper presents the

current concepts formulated with pragmatic approach within the frame work of *Ayurveda*.

OBJECTIVES AND METHODS

The main objectives is to identify the disease known by the name of “cancer” – according to *Ayurveda* and understand the aetiopathogenesis in the frame of *Dosha-Dhatu-Mala* triad leading to establishments of *Samprathi* – eventually evolving the line of treatment. Working in one of the leading cancer hospital set up in India, provided an excellent opportunity to study, hence initially all types of patients were observed at various stages by regular follow up at out patients as well as in patient. It was realized that each type of cancer needs more attention. Hence, only a few types were selected for detailed examination. With the help of a well maintained cancer registry from where the data was taken and in

addition, more specific data required from *Ayurvedic* point of view was obtained prospectively. Review of literature, both ancient *Ayurvedic* texts and modern medical texts and Journals was done along with the clinical study. Discussions were held with concerned physicians on individual cases. An experimental account of six years of exercise, the conclusions were drawn utilizing the collected data.

CURRENT CONCEPTS OF CANCER

Cancer is not a single disease as generally believed. It has a very wide spectrum of conditions but have some commonness. It is now well understood that cancer is the result of cellular genetic changes leading to abnormal proliferation of such 'altered' cells which grow disproportionate to the needs of the body and pervades all vital parts if not controlled effectively. Hence its diagnosis is an elaborate but a precise process done by a biopsy of the affected tissue. Clinical examination is of course mandatory although not conclusive. The words like "neoplasm", "malignancy", "oncogenesis", "carcinogenesis", "cancer", etc are essentially attributed to such genetically determined tumour related clinical conditions. Hence cytogenetic examination is emerging as a new dependable technique. Although, clinically cancer manifests in wide spectrum of signs and symptoms, they are characterized by the involvement of definite tissue which can be identified microscopically depending on the cell of origin. The natural history and biology progresses into a definite clinical pattern. The tumour cells are monoclonal (arising from single cell) which secrete certain substances, which are used as tumour markers by biochemical methods. Tumor cells migrate through lymphatic or haematological channels to other areas of the body and develop into tumours. They

can even spread directly to neighbouring tissues with their immense speed of growth at the cost of the host and endangers its existence. Number of aetiological factors have been identified such as radiation, chemicals, drugs, viruses etc. The host factors itself contributes in the pathology. However, enormous amount of work is still in progress in different countries of the world. This has assumed a separate branch of medical science known as Oncology.

CANCER AND AYURVEDA

Nature's phenomenon has been the same, but man understands it in his own way at different points of time. In the history of medicine we have seen this clearly. Cancer can be stated to be the child of scientific medicine's technological innovation. The microscope that revolutionized the medicine with bacterioviral causation, also did similarly in the cellular basis concept of cancer aetiology. Obviously it is very recently understood phenomenon. The objective evaluation of any theory is the Darshanik concept of Pratyaksha. *Ayurveda* and contrarily, modern medicine depends on objectivity, hence to understand cancer in the language of *Ayurveda* is like adding a new chapter to Nidana Sthana of *Charaka* samhita. The need for such a work needs to be emphasized. All that we have is a few samhitas and they are the only source of information. This work attempts to analyse (*Anumana*) on the basis of clinical study (*Pratyaksha*) correlating with the shastra (*Aagama or Aaptopadesha*). This confirms to the code of *Ayurvedic* tradition. No shastra can develop unless it keeps pace with related systems. *Sushruta's* advise has been well taken.

Cancer patients presenting as mass in the abdomen is one of the major area as quite number of cancers have this clinical

condition commonly. Over the period of six years, a study of all cancers which are known to be associated with mass in the abdomen were taken up to understand the natural history and clinical behaviour during stages of the disease. Modern oncology has systematically established on the basis of the cell involved in different cancers in most of the varieties. The study convincingly proved that the various classifications found in oncology is fully justified as their cell of origin, tumour developing speed, clinical behaviour, signs and symptoms, type of metastasi are well understood and demonstratable. Since these are absolutely objective and non-ambiguous the diagnosis established was taken as the base for study.

TABLE 1

MALIGNANT TUMOURS WHICH PRESENT CLINICALLY AS MASS IN THE ABDOMEN.

1. PRIMARY CANCERS OF THE ABDOMINAL REGION (ADULTS):

Carcinomas of stomach
Pancreas
Colon
Kidney
Ovary
Endometrium
Bladder
Non-Hodgkins lymphoma
Hodgkins disease
Hepatocellular carcinoma
Chronic myeloid leukemia
Acute lymphocytic leukemia
Chloroma in Acute myeloid leukemia

Retroperitoneal sarcomas

2. METASTATIC CANCERS (PRIMARY KNOWN OR UNKNOWN) IN ADULTS:

Female breast cancers with abdominal lymphnodes metastasis
Oesophagus cancer with extension to stomach
Lung cancer with lymph node metastas.
Testicular cancers with lymphnode metastasis
Malignant melanoma with abdominal metastasis
Metastasis to ovary by breast and stomach cancers
Metastasis to omentum or to peritonlum by stomach, colon and ovary cancers.
Metastasis to liver by breast, oesophagus, stomach, pancreas, melanoma, colon, Ewing's sarcoma, Renal tumours.

3. PAEDIATRIC MALIGNACIES:

Acute leukemia
Lymphoma (Non-Hodgkin's and Hodgkin's)
Neuroblastoma
Wilm's tumour or nephroblastoma
Hepatoblastoma
Rhabdomyo sarcoma
Germ cell tumour
Chronic myeloid leukaemia
Metastasis to liver from other primary sites

Lymphnode metastasis from other primary sites.

DISCUSSION AND ANALYSIS

I. (A) Abdominal tumours

An *Ayurvedic* physician can think of Gulma or Udara clinically and uses all his efforts to make a diagnosis. He may finally classify under doshic category, but the precise details, exact location, relation to other organs and finally the stage cannot be clinically appreciated. Now the question of this tumour being “cancer” or not is a non entity in the absence of present oncology knowledge. The doshic classification itself will be disputable as it has a strong and inevitable subjective bias.

DISCUSSION

Gulma is one most important disease found in *Ayurvedic* literature to describe tumour of the abdomen. *Charaka* infact has dealt only six disease of physical origin in *Nidana sthana* in which *gulma* represents the abdominal disorders with mass but *Sushruta* has taken under *Udara*. Experiences in this study clearly showed that both these are to be taken to understand abdominal malignant tumours in *Ayurvedic* context.

Although *gulma* is the most probable diagnosis clinically, all mass abdomen cases cannot be included as evident from the Table 1. Another condition *Abyantara Vidradhi* was also taken up for recognizing the malignant condition, as it appeared close to *gulma*. *Granthi* is the proper term to describe tumour. *Arbuda* is also a *granthi*, but both these have not been described as abdominal tumours at all. But, both *Charaka* and *Sushruta* have mentioned *gulma* as a *granthi* originating in the gastro

intestinal tract. It is a hard mass confined to the five anatomical positions. However, all the *gulmas* do not appear to be malignant type. The *Tridoshaja* or *Nichaya gulma* having stone hard elevated mass which is described as incurable must be a malignant tumour. The locations of *gulma* covers almost the entire abdomen region from diaphragm to inguinal region and hence any of the tumour in the table 1 can be *gulma*. But as per *Sushruta gulmas* doesn't involve dhatus but only doshas and hence obviously the mass doesn't originate from a tissue. From this description and also due to exclusion of *gulma* from surgical management it is not possible to draw conclusion about *gulma's* malignant identity. Among the *udara rogas yakritodara* and *pleehodara* are to be excluded here as they have been identified without ambiguity (dealt separately in the end). *Gulma* like mass are said to occur in *udaras* and have progressively frightening course. Since all *udaras* are generally regarded as *maharogas* indicating extreme difficult clinical situation, and *udaras* are terminal events of chronic pathological process, it is felt necessary to regard some of them as malignant. Most of the explanations in the texts appear clearly on the basis of external examination and definitely not by exploratory laparotomy.

The *Sannipatodara* which is specially mentioned by *Sushruta* as *Dooshyodara* needs to be given special attention. It is unique in many ways. The etiology relating to *dooshivisha* and *garavisha* and producing typical serious signs and symptoms makes it appear malignant. The modern aetiology of all cancers referring to radiation, chemicals, drugs, viruses are all *vishas* in the *Ayurvedic* terminology. All the primary cancers of the abdomen and metastatic cancers with primary else where ultimately produce *udara* and most of them also progresses to *jalodara*

also. When we examine the environment in which we are living and food and other substances to which we are exposed to, we can imagine the extent of our exposure to so many toxic substances. Since most of them are scientifically known as toxic, these chemicals and drugs have to be taken as *dooshi* or *gana vishas*. Hence in this study *dooshyodara* emerged as the important disease to identify and correlate with the malignant abdominal tumours. Further, the *viruddahara* and *vishamahara* are well known to produce *gara* like situation which appeared very relevant from the observations made in the study. The term *mahodara yakritpleehee* in *gara* is note worthy.

The non-hodgkins lymphoma in both children and adults, advanced abdominal hodgkins disease, ovarian cancer, peritoneal and omentum metastasis of various other tumours typically, progresses and presents like *dooshyodara*.

125 paediatric and 180 cases of adult NIIL were studied out of which 137 cases were abdominal and other cases were either mediastinal are peripheral nodal and extra nodal. Non abdominal NHL also progresses finally reach abdomen. Hence all cases were studied. Table 2 shows the important signs and symptoms.

As explained by *Sushrutai* and *Charaka* the *visha* or toxic aetiology is now scientifically well established. All *visha dravyas* have great potential to bypass the *doshas* in the body and spread along all routes and vitiate the blood. The chief damage is done by destroying the *ojusi* due to complete opposite property. Lastly all the *doshas* also gets involved along with *Dhatus*, particularly the *rakta*, the whole body systems get disturbed. In the acute or chronic sequence of events initiated by

innumerable unknown *Visha dravyas*, I propse that the *visha* etiology should be accepted for formation of *granthi*. The *dooshyodara* which has been proposed as NHL and other abdominal metastasic disorders based on the present study has been very well supported by number of studies. The word *Granthi* or tumour has been explained in both the *gulmai* and *udara* contexts by all Acharyas.

NIIL is essentially the malignant tumour of the lymphoid system. Although it presents with diverse range of diseases and sites, they have general similarities within the group as a whole. The disease originates in the primary site of lymph nodes i.e. cervical, axillary, mediastinal, abdominal and inguinal or in the extra nodal organs but very soon they spread and involve other lymphatic areas and spread to other organs. Lymphoma cells have tendency to infiltrate almost all tissues. Involvement of bone marrow is quite common which results in leukemia.

The other primary solid tumours of the abdomen do not present like *dooshyodara*, but in advanced stages almost all of them progresses to *dooshyodara*. Hence in my study I considered another possibility as suggested by *Sushruta* – *Abhayantara vidradhi*. *Sushrutha* clearly differentiates the external and internal *vidradhis*. Further he explains the difference between *gulma* and *vidradhi* in which the *dhatu's* (tissue ?) involvement of *vidradhi* is made clear. Twelve difference sites of origin have been given and their tendency to spread deeper into the *dhatu's* has been recognized. The most striking point to be noted is (a) Internal *vidradhi'si* develop very fast (*Brishatva*), (b) frightening (*Ghora*), (c) deep rooted (*Mahamoola*), and (d) have typical tumours (*gulma roopa*) with (e) anthill like growth (*valmeekavat*). Al these features clearly

suggest malignant features found in the carcinomas and sarcomas of abdominal structures. Considering the details attributed to *vidradhi* and clinically observing various

abdominal tumours I had very little doubt in accepting *abhyantara vidradi* as malignant tumour.

TABLE 2. SIGNS AND SYMPTOMS AT THE TIME OF PRESENTATION AND IN UNCONTROLLED PROGRESSIVE DISEASE

At the time of presentation	Uncontrolled disease
Heaviness of the abdomen	Gross ascitis
Distension of the abdomen	Oedema-pedal / general
Mass per abdomen	Deeply jaundiced
Loss of appetite	Hepatic coma
Indigestion	Unconsciousness
Weakness and fatigue	Paraplegic
Dyspnoea	Paralytic
Pallor	Malena
Nausea & Vomiting	Haematemesis
Loss motions	Bleeding – other areas
Loss of weight, excessive thirst	Breathlessness
Drowsy & sleepy, loss of tase	Severe cough
Hepatomegaly, Splenomegaly	
Multiple nodes, Ascitis, Jaundice	
Fever	

My observations clearly suggests that all abdominal tumours have to be recognized either in *gulma*, *udara* or *vidradhi*. There is no other diseases entity in the *Ayurvedic* literature relating to abdominal tumours. There is considerable amount of ambiguity

and confusion and overlapping in the explanations. For eg., all the tree entities are referred as *granthis*, but they are different. Internal *vidradhi*'s explanations are clearly like solid tumours but *gulma* with only dosha involvement is a soft mobile mass.

But *gulma* when chronic spreads all over the abdomen and gain the shape of turtle and becomes a killer. *Udara's* by nature dreadful, non responsive and have *granthi* like masses. All these can be associated with *vishas*, as mentioned by *Sushruta*.

The oncology experience and observation combining with *Ayurvedic* experience and literature has led me to draw conclusions in the following way.

All cancers in general and abdominal cancers studies here in particular have definite *visha* aetiology of *dooshivisha* type. The *dosha lakshanas* are not at all seen in most of the cancers till the disease is advanced suggests and supports this hypothesis and hence I wish to propose that *vishas* directly involve with the *dhatus* and pathogenesis is initiated. Since majority of the population do not have *shuddha sharers* (cleansed internal environment) the situation will be favourable, and *granthii* will be formed. The *samprapthi of granthi, arbudai* and *vidradhi* essentially involve *rakta*, *mamsa* and *medas* together which I feel can be due to specific *dooshivishas*. The *doshas* automatically involved but do not show generalized symptoms as they are localized. *Sushruta's* six *kriyakalasi* certainly cannot be appreciated in solid cancers because these tumours do not undergo these *dosha* based stages at all. The *gulma-granthi-vidradhi-udara* are closely associated conditions and whenever they are associated with *visha* aetiology perhaps the situation becomes malignant. They can also be regarded as different stages which actually differ in different tumours.

However histopathological classification, organ specific metastasis, detailed staging procedures, etc are not of much importance for the preliminary study and hence not discussed here. More studies however

should be done by team of *Ayurvedic* physicians for further discussions.

ABDOMINAL TUMOURS (SPECIFIC) NO. (1)

Apart from the tumours discussed above we find in the literature three specific conditions which are given separate status and relate to malignancies. These are also abdominal tumours but specific to organs referred clearly viz. *Yakritodara – Pleehodra. Raktagulma* is not discussed here as I have not made studies on that. These two conditions clinically referred as hepatomegaly and splenomegaly occurs in quite a number of benign and malignant conditions and they are very important clinical signs, but in *Ayurvedic* literature the references are not only scarce but vague and confusing (*pleehodra* is discussed separately). The *pleeha* or spleen appears to be given more importance than liver. The aetiology, pathogenesis and symptoms have been considered as common for both these organs.

According to modern oncology and from my experience liver is an important organ of metastatic spread in number of cancers and signifies advance disease but spleen metastasis is seen only in haematological malignancies which is not considered as metastasis because spleen is a part of primary haematopoietic system. In this study more than 400 cases were studied where liver involvement was documented clinically, histological and by imaging techniques. The various types of cases studied are listed below.

All patients presented with enlargement of liver and proved to be malignant were studied.

The following conditions are listed where hepatomegaly is associated.

1. Primarily liver malignance (Adults only)
– Hepatocellular carcinoma.
2. Metastatic carcinomas with primary (Adults only) (a) breast (b) lung (c) stomach (d) oesophagus (e) pancreas.
3. Haematological malignancies (Adults and children) (a) lymphoma (b) Hodgkin's disease (c) leukamias
4. Paediatric malignancies (a) Acute lymphoblastic leukemia (b) Non hodgkin's disease (c) Hodgkin's disease (d) Neuroblastoma (e) Hepatoblastoma.

In the above mentioned conditions hepatomegaly is a definite conditions in some stage of the natural history of the disease. Histopathologically confirmed cases were followed and examined at all stages. The primary liver cancer patients have very uneventful vague history and

seldom suffer from any serious problem except pain in the upper quadrant of the abdomen, but clinical exam reveals grossly enlarged liver, which is non tender and hard. Most of the patients present with huge mass with mild abdomen paid. Gradually they develop progressive loss of appetite and weight in addition aversion to food. In my observation 65% of patients developed jaundice and eventually died. However till they develop these two terminal events the quality of life was remarkably good. In case of metastatic liver, the primary will be known majority of the cases. A few cases will have occult primary or a small tumour. Clinically, patients with metastatic liver are more ill and even small size liver enlargement make significant difference in quality of life due to diffuse involvement and aggressive proliferation of tumour cells. Most of the cases develop jaundice and ascitis and die at a faster rate than primary carcinoma. In these cases in addition to liver the lymphnod metastasis in the abdomen will be usually associated.

TABLE 3. SYMPTOMS ASSOCIATED WITH PRIMARY CARCINOMA LIVER AT PRESENTATION

Symptoms	Percentage of patients
1. Right upper quadrant pain	70
2. Abdominal fullness	50
3. General weakness	50
4. Weight loss	40
5. Loss of appetite & indigestion	40
6. Jaundice	40
7. Mass felt	25
8. Haematemesis	20
9. Nausea / vomiting	20
10. Fever	5

TABLE 4. CLINICAL SIGNS FOUND IN CARCINOMA LIVER PATIENTS AT THE TIME OF DIAGNOSIS

Signs & Symptoms	Percentage of patients
1. Hepatomegaly	100
2. Ascitis	60
3. Jaundice	30
4. Pedal oedema	40
5. Abdominal venous distension	50
6. Malena	65
7. Lymphadenopathy	40
8. Distant metastasis	10
9. Associated diseases	25

The haematological diseases with hepatomegaly can be clearly distinguished from other solid tumours without any ambiguity and hence they are not discussed here. Other paediatric tumours can however be taken along with solid tumours discussed above.

In *Ayurvedic* literature we come across a few diseases associated with hepatomegaly which is mentioned as a separate entity in some contexts. The Yakrutodara in the udara context and kumbhaka – haleemaka in the pandukamala context and special reference as mahodara yakritpleeche in the garavisha context are considered here as they clinically correlate to many malignant conditions. The visha aetiology of *Ayurveda* is well supported by the modern toxic and vital aetiology. The primary liver cancer has been related to malnutrition, dietary carcinogens like nitrosamines and a toxins, parasitic infections and cirrhoea from number of causes including alcohol. The

hepatitis B virus has been conclusively proved to be associated. On the basis of these evidences and *Ayurvedic* reference to gara and *dooshivisha* and udara begins well known terminal condition of chronic pathological conditions of different diseases, the yakritodara is to be considered as malignant condition, whether it is primary or metastatic (irrespective of other primaries). In the study it was very clearly seen that not only the liver metastatic cases are udara conditions but they will progress to jalodara or dooshyodara conditions. The non malignant hepatomegaly like cirrhosis which may also progress to jalodara is to be regarded as yakrit dosha like pleehadosha or as yakritvridi.

The concept of common aetiology and pathology for both liver and spleen mentioned in samhitas cannot be justified, since none of the evidence support. In pure lymphoid malignancies alone we can clearly appreciate the involvement of both liver and

spleen but unlike other cancers they are reversible, and do not correlate with udara rogas.

The primary cancer of the liver or hepatocellular carcinoma and all carcinomas and sarcomas that metastasizes to the liver or recognizable as yakritodara mentioned in *Ayurvedic* literature.

ABDOMINAL TUMOURS (SPECIFIC) NO.2

The third category of mass abdomen clinical presentation that can be seen in *Ayurvedic* literature is “pleeha” related disorders. The terms used to describe are (1) *Pleehadosha* (2) *Pleeha vridhhi* (3) *Pleehodara*.

Splenomegaly is a important sign in quite a number of both benign and malignant conditions. In this study only malignant diseases were taken. The following are the chief malignant diseases associated with splenomegaly studied.

1. Acute Lymphocytic Leukeamia (ALL)
(Adults & Children)
2. Non-Hodgkin's Lymphoma (NHL)
(Adults & Children)
3. Hodgkin' Disease (HD) (Adults & Children)

4. Chronic Myeloid Leukeamia (CML)
(Adults & Children)
5. Chronic Lymphocytic Leukeamia (CLL)
(Adults only)
6. Hairy Cell Leukeamia (HCL) (Adults only)

300 cases of ALL, 200 cases of NHL, 280 cases of HD, 250 cases of CML, 8 cases of CLL and 5 cases of HCL were studied between 1986 and 1992. ALL and NHL are very acute conditions with very short history and aggressive behaviour and do not have any correlation to the pleeha group disorders. Pleehavridhhi is to be taken as a sign only. This fact is conclusively understood. Rest of the conditions are chronic in nature and splenomegaly is the chief presenting sign except the HD. The HD is in fact excluded as it has significant lymphnode involvement and splenomegaly is in fact only pleehavridhhi. The CML and HCL were the only two conditions left out since the CLL has not only low incidence but completely asymptomatic till the disease reaches terminal stage.

The CML patients were found to be unique and had typical symptoms and clinical course and attracted keen attention. 75% of the patients had gross splenomegaly which was non tender and hard and clearly like the tortoise shell (Koormapristavat) (6).

TABLE 5 : SIGNS AND SYMPTOMS AT THE TIME OF PRESENTATION

Signs & Symptoms	Percentage of patients
1. Fatigue	90
2. Anemia – mild	85
3. Heaviness of abdomen with pain	80
4. Fever – low grade	75
5. Loss of appetite	60
6. Mass abdomen	50
7. Splenomegaly	
>16 cms	40
10 – 16 cms	20
5 – 10 cms	20
< 5 cms	10
8. Nausea – vomiting	15
9. Cough, Respiratory problem	10
10. Others	20

CML is a clonal myelo proliferative disorder of a pluripotent stem cell of the bone marrow and all the blood elements are involved. The media age is 50 years and undoubtedly a adult disease. It can easily be diagnosed by peripheral blood examination showing abnormal increase of the total count with lot of immature cells. Usually it has a chronic phase ranging several years and then accelerate suddenly and goes to blastic or acute phase which is the terminal event of the disease process.

The *pleehodara* mentioned in all the three classics have very clear resemblance to the CML observed in this study. The signs and symptoms given above shows almost all the cases had similar presentation. Prognosis is definitely bad as envisaged in *Ayurveda*. However, by the presently available therapy,

the chronic phase can be extended to a few years.

Except CML, none of the other splenomegaly groups has any resemblance to *pleehodara*. Since *udara roga* has been grouped under *maharogasi* and *pleehodara* specially recognized as 4th in the order of *Krichrata* and the literature description was very obviously observed in the group studied in CML, the *Pleehodara* is to be taken as Chronic Myeloid Leukemia. Further there is no other disease that can be considered in the cancer group. However, the begin diseases have not been taken into consideration as they are unlikely to be udara but only pleehadosha or pleeha vridhi in my opinion.

CONCLUSION

Systematically worked up malignant mass abdomen cases has been discussed in the *Ayurvedic* framework. I have proposed the *Ayurvedic* visha aetiology as having very strong malignant potential. Since the vishas have independent components to initiate a unique pathological process which is known to get involved with doshas and *dhatu*s later, all cancers in general and the diseases discussed here in particular are to be taken as *vishajanya granthi vikaras*. I have concluded that UDARA-GULMA-VIDRADI are the abdominal tumours which are having what we today understand as “malignant” or cancerous potential. Further I wish to conclude that the modern diagnosis in the name of CANCER can never be equated with any single disease entity mentioned in *Ayurvedic* literature. Modern concepts itself clearly says cancer is not a single kind of disease. ARBUDA which is generally taken for all cancers is incorrect in this context as evident from the study of the abdominal tumours presented here.

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