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PERSPECTIVE OF BHAGANDAR AS A MAHAGADA BY A CASE REPORT REVIEW OF CHRONIC FISTULA IN ANO DEVELOPING INTO MUCINOUS ADENOCARCINOMA.

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Abstract
Bhagandar (Fistula in Ano) is a common clinical condition in perineal area which is considered as Mahagada by Acharya Sushruta due to the difficulties in the treatment, in curability, recurrence and development of complications. The conceptual study shows belief of different acharyas regarding the concept of Mahagada which aid to decide prognosis of diseases. So there is need for interpretation and appropriate clinical understanding of the Mahagada for better clinical out come in Bhagandar. Mucinous adenocarcinoma of the perianal region is an oncologic rarity posing a diagnostic and the rapeutic dilemma for treating oncologists due to very few reported cases without definite therapeutic guidelines. It accounts for 2% to 3% of all gastro intestinal malignancies and are historically known to arise from chronic anal fistulas and ischiorectal or perianal abscesses. An effort is made to support the concept of Mahagada through reporting a rare case of perianal mucinous adenocarcinoma in a 63-year-old male in itially treated with surgical intervention twice for recurrent fistula in ano and procedures like Ksharasutra (medicated Seton thread) for 6-8 months duration.

Keywords: Mahagada, Bhagandara, Fistula-In-Ano, Mucinousa denocarcinoma,

Introduction
Chronic perianal fistula is a common clinical condition, correlated to Bhagandar and it is considered as Mahagada. However, progression of perianal fistula to adenocarcinoma is uncommon representing approximately 2–3% of large bowel cancers [1]. They are known to be associated with benign inflammatory conditions like chronic anal fistulae, perianal abscesses and Crohn's disease **[2]** Mahagada is one of the distinctive thought present in Ayurveda Samhitas which signify disorders having poor prognosis or difficult to treat resulting in morbidity and mortality. At the time of

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Astaumahagada listing, *Sushrutasamhita* gives emphasis on diseases which are incurable/ hardly curable in *Shalyatantra* view one such disease is Bhagandar (fistula in ano). To validate such concept needs clinical support so here is an attempt is made through this case report which may help to understand the concept of *Mahagada*.

Case

A 63-year-old male patient with a 20-year history of perianal fistula approached with severe pain, swelling and mucinous discharge from perianal region. In 2002, patient had undergone incision and drainage of perianal abscess and Fistula in ano. Since 6-8 months patient was treated by *Kshara Sutra* (medicated Seton). Patient had relief from the pain & discharge from the fistulous tract. But symptoms again reoccurred in severe form where patient was unable to sit and approached to our hospital. On general examination no abnormality detected with no lymphadenopathy. Local examination revealed indurated, ulcerative lesions at 3 & 7 O'clock positions at a distance of 2 cms away from the anal verge. (Figure1) On Digital Rectal Examination, tone of the sphincter was increased and tenderness was present. Internal opening with cavity was palpable at 6 O'clock position and Red currant jelly like mucoid discharge was observed on the examining finger. Patient has been sent for Magnetic resonance imaging (MRI) Fistulogram. (Figure 2) which suggested T2 hypertense lobulated lesion seen in perianal and perirectal region measuring 5.8x 7.6 x 9.2cms (APxTRxCC) the lesion surrounds posterior half of lower segment of the rectal and entire anal canal 3 o'clock till 9 O'clock positions with areas of serosal infiltration. It has the large internal opening within the anal canal 6 -9 O'clock approximately 4cms above the anal verge. Anteriorly it extends into the perineal region involving the base of the penis through the thick tract. Superiorly it has supralevator extension on right side of the breech in the levator-ani muscle, abutting right anterolateral wall of the rectum with the loss of fat plane between them. The lesion inferiorly extends right ischiorectalfossa through transphicteric plane & crosses the midline to the left side to open externally into left gluteal cleft. On contrast study its shows papillary mesh like enhancement they are interspersed areas of non-enhancing thin walled mucinous contents with in the lesion. No obvious diffusion restriction. (Figure3) After MRI report case was planned for Incisional biopsy. Histological examination of a biopsy specimen taken from the lesion revealed mucinous adenocarcinoma.(Figure 4). Patient was sent for CT abdomen and pelvis (fig. 1b) to rule out spread. Report suggested Biopsy proven adenocarcinoma of perineal region, Grade II Prostatatomegally, heterogeneously enhancing partially necrotic mass lesion in perianal Ischioanal and supralevator areas within filtration into the Anal canal and distal rectum as described and Spleenomegally.
No enlarged pelvic lymph node was observed, nor was there evidence of distant metastasis.

Discussion

*Mahagada*is one of the distinctive fundamental concept present in Ayurvedic *Samhitas.* Acharya S*ushruta* considered *Bhagandar as Mahagada* & clinically correlated to Fistula inAno which is *Difficult to treat* (*Duschikitsya-)*.[3] it is also known as *Mahavyadhi* which suggest deeprootedness[4] and *Maha* means imperative/gigantic/ sturdy in terms of deadly and incurable.[5]
Here an attempt is made to justify the concept of Mahagada through the case report by considering the following facts from the literary review. In the present case report of Chronic Fistula in ano developing into the Perianal mucinous adenocarcinoma where following facts found in the patient to be relevant to justify the *Mahagada* concept Clinically. Patient presented with chronicity [6] of the fistula in Ano with a history of reoccurrence and multiple surgical interventions at Guda Pradesh (Rectum). Guda Pradesh is considered as *Mulasthana*of *PurishvahaStrotas*[7] &sadhyopranahara Marma [8], because of the functional or Anatomical complications (*Upadrava*) [9] encountered in surgical intervention which affects the quality of life.

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The occurrence of a carcinoma in association with a fistula is probably due to chronic inflammation, although the rarity of the condition precludes any definite assumption in regard to the etiologic relationship of the fistula and carcinoma. In most patients, early diagnosis of this disease is difficult. In present case delay in the diagnosis may be due to the symptoms often initially mimic benign inflammatory condition like chronic Fistula in ano & Mucinous adenocarcinoma in a long-standing fistula in-ano is known to be a slow growing, locally aggressive neoplasm with a low-grade histological appearance and rarity of metastasis [10] which proves the feature of *Mahagada* like *Mahamula Vyadhi*- [11].These are locally aggressive neoplasm with a poor prognosis as the exact management protocol is still unknown due to lack of any clinical controlled trials. It is said to have a slow indolent course with low incidence lymph node spread [12] or distant metastasis [13] which proves the feature of *Mahagada* like *Achikitysa Vyadhi*[14]. Above said features are seen in the present case report which justifies the belief of ancient *Acharyas* in the concept of *Mahagada*.

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Figure a:-

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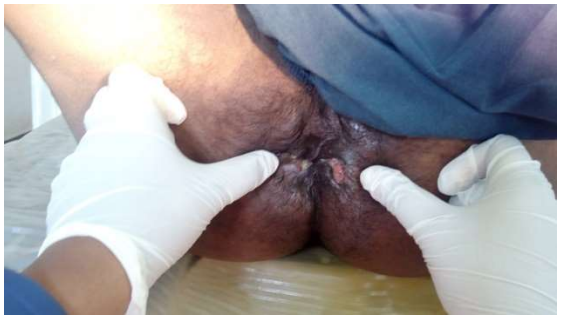
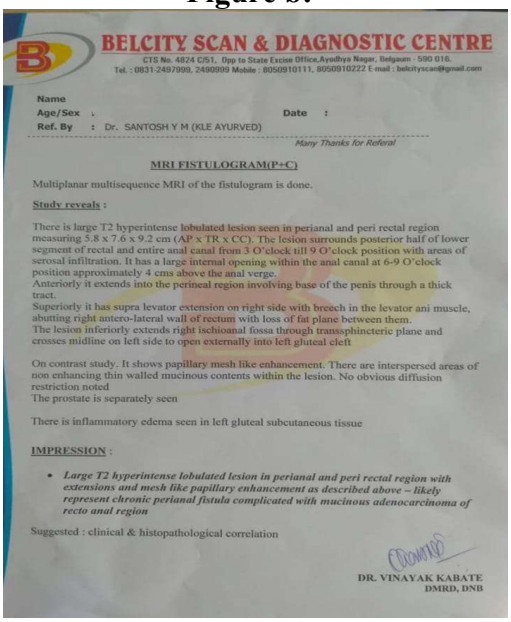


Figure b:-



BELCITY SCAN & DIAGNOSTIC CENTRE

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Name
Age/Sex :
Ref. By : Dr. SANTOSH Y M (KLE AYURVED)
Date :

Many Thanks for Referal

MRI FISTULOGRAM(P+C)

Multiplanar multisequence MRI of the fistulogram is done.

Study reveals :

There is large T2 hyperintense lobulated lesion seen in perianal and peri rectal region measuring 5.8 x 7.6 x 9.2 cm (AP x TR x CC). The lesion surrounds posterior half of lower segment of rectal and entire anal canal from 3 O'clock till 9 O'clock position with areas of serosal infiltration. It has a large internal opening within the anal canal at 6-9 O'clock position approximately 4 cms above the anal verge.
Anteriorly it extends into the perineal region involving base of the penis through a thick tract.
Superiorly it has supra levator extension on right side with breech in the levator ani muscle, abutting right antero-lateral wall of rectum with loss of fat plane between them.
The lesion inferiorly extends right ischioanal fossa through transsphincteric plane and crosses midline on left side to open externally into left gluteal cleft

On contrast study, It shows papillary mesh like enhancement. There are interspersed areas of non enhancing thin walled mucinous contents within the lesion. No obvious diffusion restriction noted
The prostate is separately seen

There is inflammatory edema seen in left gluteal subcutaneous tissue

IMPRESSION :

- ***Large T2 hyperintense lobulated lesion in perianal and peri rectal region with extensions and mesh like papillary enhancement as described above – likely represent chronic perianal fistula complicated with mucinous adenocarcinoma of recto anal region***

Suggested : clinical & histopathological correlation

DR. VINAYAK KABATE
DMRD, DNB

Figure c:-HPR Slides

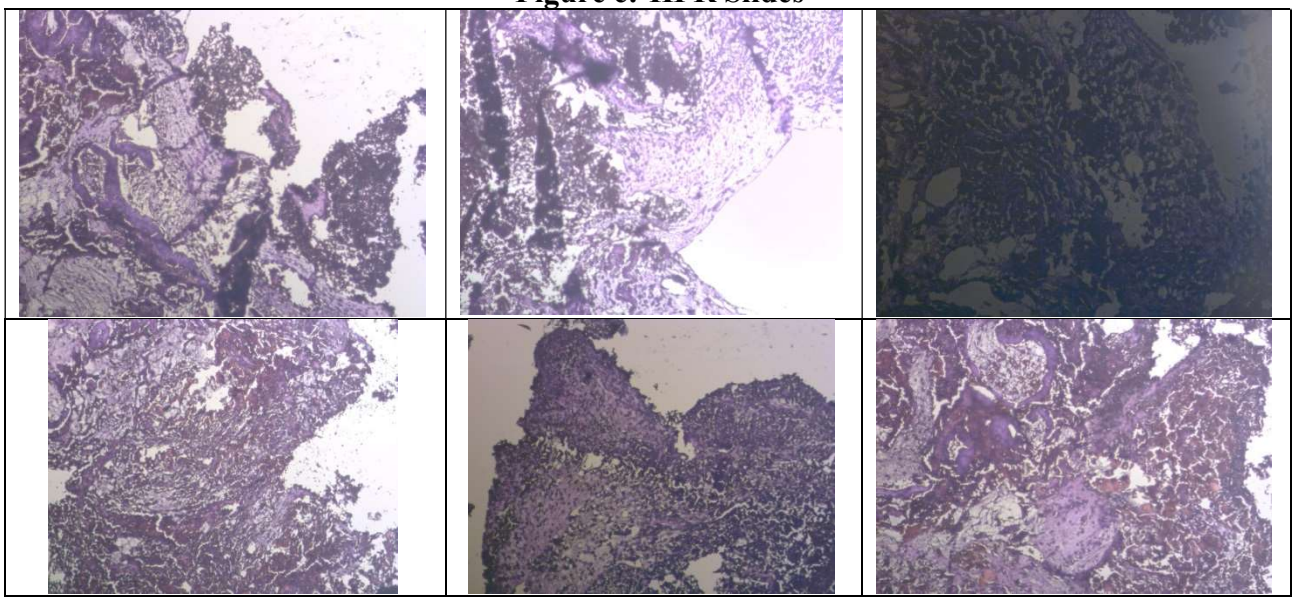

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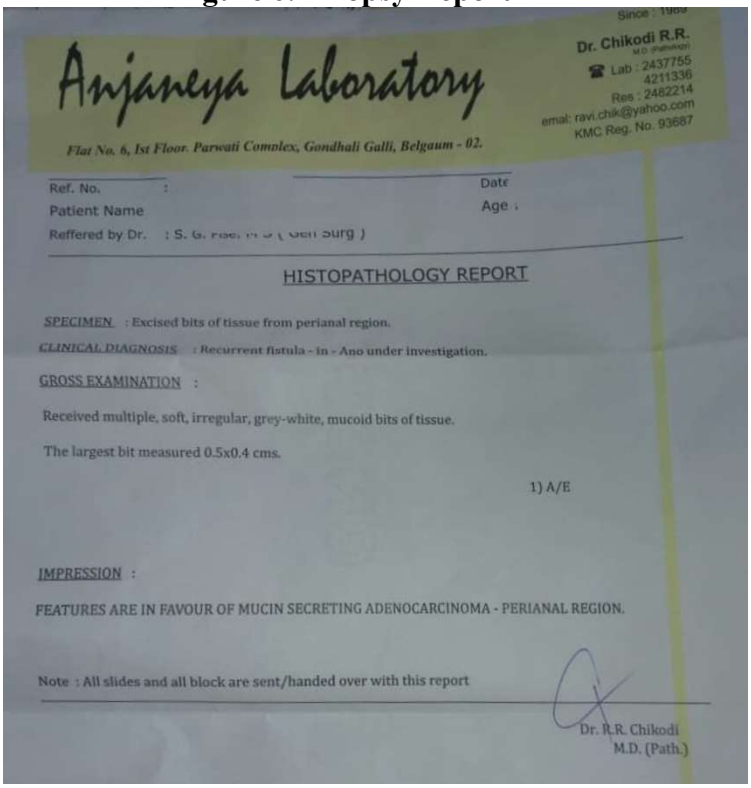
Figure c:- Biopsy Report



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Ref. No. :
Patient Name
Reffered by Dr. : S. G. Hos. M.S. (Gen Surg)

Date
Age :

HISTOPATHOLOGY REPORT

SPECIMEN : Excised bits of tissue from perianal region.

CLINICAL DIAGNOSIS : Recurrent fistula - in - Ano under investigation.

GROSS EXAMINATION :

Received multiple, soft, irregular, grey-white, mucoid bits of tissue.

The largest bit measured 0.5x0.4 cms.

1) A/E

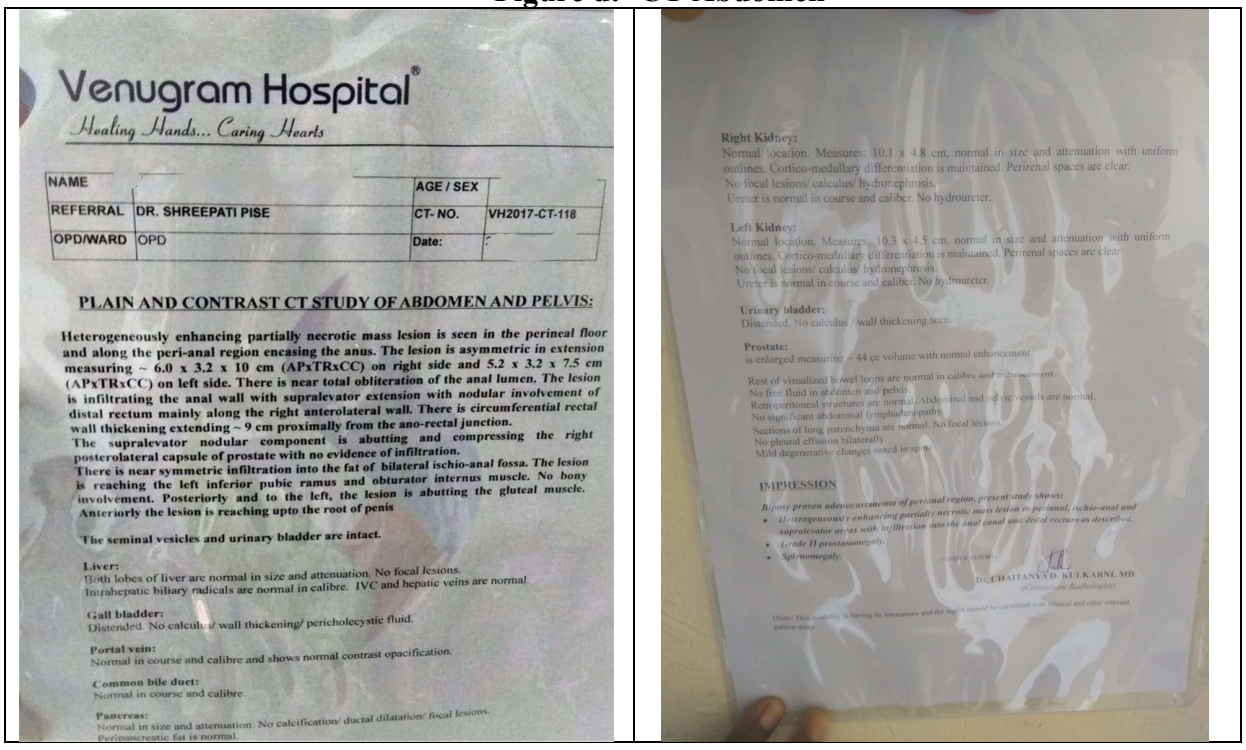
IMPRESSION :

FEATURES ARE IN FAVOUR OF MUCIN SECRETING ADENOCARCINOMA - PERIANAL REGION.

Note : All slides and all block are sent/handed over with this report

Dr. R.R. Chikodi
M.D. (Path.)

Figure d:- CT Abdomen



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PLAIN AND CONTRAST CT STUDY OF ABDOMEN AND PELVIS:

Heterogeneously enhancing partially necrotic mass lesion is seen in the perineal floor and along the peri-anal region encasing the anus. The lesion is asymmetric in extension measuring ~ 6.0 x 3.2 x 10 cm (APxTRxCC) on right side and 5.2 x 3.2 x 7.5 cm (APxTRxCC) on left side. There is near total obliteration of the anal lumen. The lesion is infiltrating the anal wall with supralevator extension with nodular involvement of distal rectum mainly along the right anterolateral wall. There is circumferential rectal wall thickening extending ~ 9 cm proximally from the ano-rectal junction.
The supralevator nodular component is abutting and compressing the right posterolateral capsule of prostate with no evidence of infiltration.
There is near symmetric infiltration into the fat of bilateral ischio-anal fossa. The lesion is reaching the left inferior pubic ramus and obturator internus muscle. No bony involvement. Posteriorly and to the left, the lesion is abutting the gluteal muscle. Anteriorly the lesion is reaching upto the root of penis

The seminal vesicles and urinary bladder are intact.

Liver:
Both lobes of liver are normal in size and attenuation. No focal lesions.
Intrahepatic biliary radicals are normal in calibre. IVC and hepatic veins are normal.

Gall bladder:
Distended. No calculus/ wall thickening/ pericholecystic fluid.

Portal vein:
Normal in course and calibre and shows normal contrast opacification.

Common bile duct:
Normal in course and calibre.

Pancreas:
Normal in size and attenuation. No calcification/ ductal dilatation/ focal lesions.
Peripancreatic fat is normal.

Right Kidney:
Normal location. Measures: 10.1 x 4.8 cm, normal in size and attenuation with uniform outlines. Cortico-medullary differentiation is maintained. Perirenal spaces are clear.
No focal lesions/ calculus/ hydronephrosis.
Ureter is normal in course and caliber. No hydroureter.

Left Kidney:
Normal location. Measures: 10.3 x 4.5 cm, normal in size and attenuation with uniform outlines. Cortico-medullary differentiation is maintained. Perirenal spaces are clear.
No focal lesions/ calculus/ hydronephrosis.
Ureter is normal in course and caliber. No hydroureter.

Urinary bladder:
Distended. No calculus / wall thickening seen.

Prostate:
is enlarged measuring ~ 44 cc volume with normal enhancement.

Rest of visualized bowel loops are normal in calibre and enhancement.
No free fluid in abdomen and pelvis.
Retroperitoneal structures are normal. Abdominal and pelvic vessels are normal.
No significant abdominal lymphadenopathy.
Sections of lung parenchyma are normal. No focal lesions.
No pleural effusion bilaterally.
Mild degenerative changes noted in spine.

IMPRESSION

Biopsy proven adenocarcinoma of perianal region, present study shows:
- *Heterogeneously enhancing partially necrotic mass lesion in perianal, ischio-anal and supralevator areas with infiltration into the anal canal and distal rectum as described.*
- *Grade II prostatomegaly.*
- *Splenomegaly.*

Dr. CHAITANYA D. KULKARNI MD
(Consultant Radiologist)

(Note: This modality is having its limitations and the report should be correlated with clinical and other relevant patient data)