Case Report

Desmoid Tumor of Anterior Abdominal Wall Arising From A Post Operative Scar

Bhaskaran A, Vijay P Agrawal, Basavarajappa M, Suresh[1] T N, Vasanth Kumar,
Dept. of General surgery, Pathology[1]
Sri Devaraj Urs Medical College, Kolar

ABSTRACT

We present a rare case of Desmoid tumor of anterior abdominal wall in an operated case of multiple ileal perforation. Desmoid tumor is a rare tumor caused by proliferation of fibroblastic cells. It may arise from fascia and aponeurosis of muscle. There is a strong relationship of the tumor with previous trauma such as surgery and Gardner syndrome. Desmoid tumor is unusual, but it should be considered as a differential diagnosis in certain clinical presentations. Histopathology is diagnostic and wide excision is a treatment of choice.

Keywords*: Desmoid tumor, Post-operative scar.*

CASE REPORT

A 38 year old male presented with two gradually growing swellings in the abdomen, one in left hypochondrium, progressing to left lumbar and left iliac fossa for 6 months and another swelling gradually increasing in size in the right iliac fossa for last 2 months.(Fig 1,2) Patient was operated previously for multiple ileal perforation ie. Ileal resection and anastomosis with temporary ileostomy and later ileostomy closure 2 years back.

On examination, the patient had a lobulated firm mass extending from the left hypochondrium superiorly to the left iliac fossa inferiorly and umbilical and left lumbar region medially and laterally respectively. The plane of the mass was parietal wall and became prominent on straight leg raising test. Overlying skin was stretched.

There was another swelling in the right iliac fossa for which cough impulse was positive and it was reducible leading to the provisional diagnosis of soft tissue tumor of anterior abdominal wall with Incisional hernia.

Ultrasound scan revealed mass in the anterior abdominal wall on left side with Incisional hernia on the right side. CT abdomen shows large heterogeneous in the anterior abdominal wall on left side with probable diagnosis of desmoid tumor with Incisional hernia on the right side. FNAC revealed benign fibroblastic tumor.

Intraoperatively, the finding was a parietal wall tumor arising from rectus muscle superficial to posterior rectus sheath with

Corresponding author:
Bhaskaran A,
Prof. & HOD, Dept. of General Surgery,
Sri Devaraj Urs Medical College,
Kolar- 563101,
Karnataka, India
Mob: 8553363644
Email: vijugunnu@gmail.com

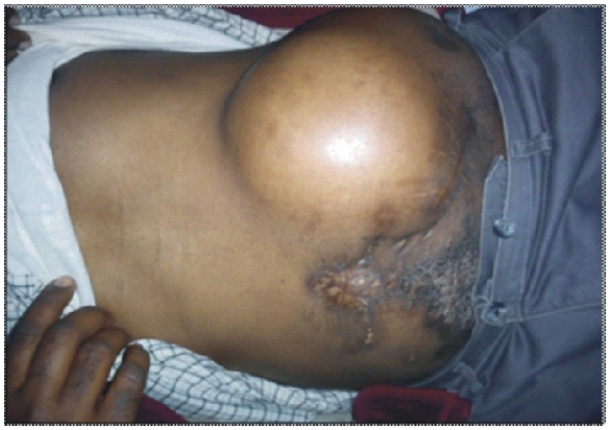

Fig 1

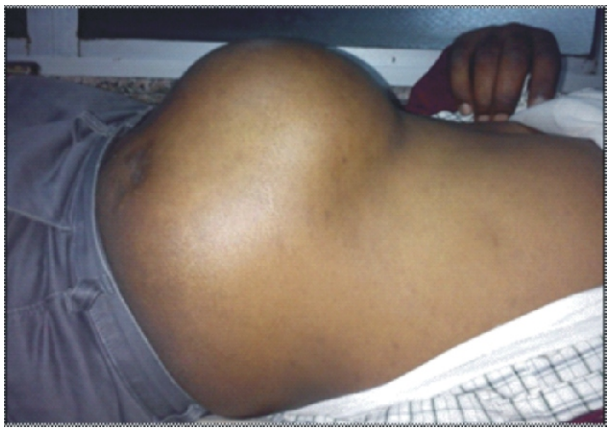

Fig 2

Fig 1 and Fig 2- Shows patient with mass per abdomen and incisional hernia

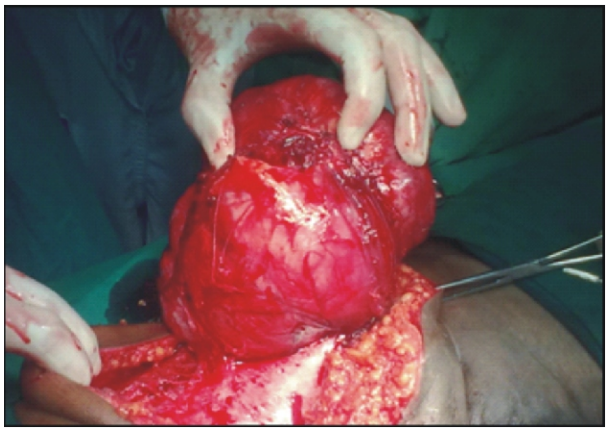

Fig 3

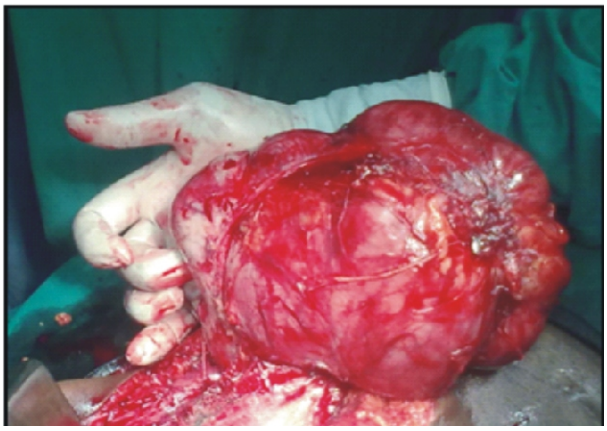

Fig 4

Fig 3 and fig 4- Shows excision of the tumor arising from post operative scar and rectus abdominis muscle

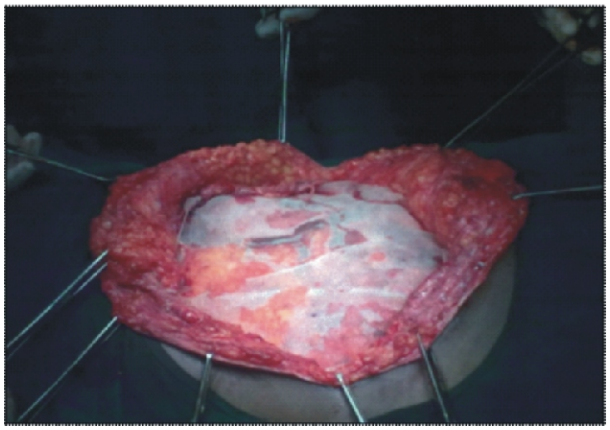

Fig- 5

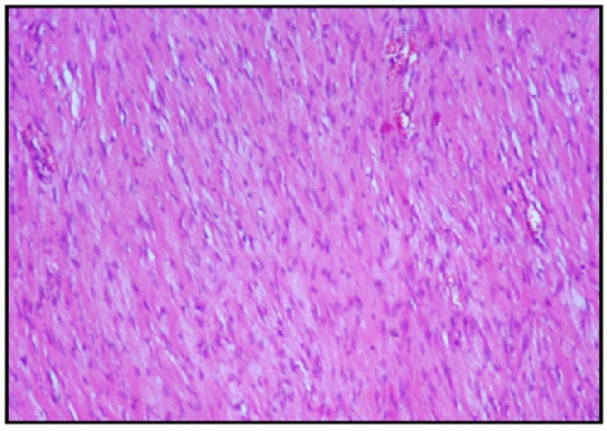

Fig-6

Fig 5- Shows reconstruction of abdominal wall defect with mesh

Fig 6- Microphotograph showing sparsely cellular benign spindle cells separated by abundant collagenous stroma. (H & E × 100)

Incisional hernia on the right side. Wide excision of 2cm and meshplasty for the Incisional hernia was done. (Fig 3,4,5)

Subsequently histopathology revealed features of a desmoid fibromatosis. (Fig 6) On immunohistochemistry tumour cells are positive for vimentin antibody and negative for S-100 antibody.

The patient's recovery was uneventful and was discharged on the 12th postoperative day with regular follow up of no complication.

DISCUSSION

Desmoid tumor is a benign fibromatosis originating from fascia and muscle aponeurosis with an infiltrating growth.[1] It is more common in females. It is commonly associated in a patient with a history of familial adenosis polyposis and surgical trauma.[2,3] Inspite of the negative free margins, recurrence occurs in up to 45%.[4]

Abdominal desmoid tumor usually presents as a mass that is sometimes associated with pain and weight loss.[5]

The differential diagnoses for our case include haematoma, fibrosarcoma, lymphoma, rhabdomyosarcoma, liposarcoma, leiomyosarcoma, neurofibroma, benign fibrous tumor and primitive neuroectodermal tumor.[6]

Histologically, desmoid tumors consist of elongated fibroblasts and myofibroblasts characterized by elongated, tapered cytoplasm; elongated, vesicular, typical-appearing nuclei; and multiple small nucleoli. The cells are linearly arranged and are surrounded and separated from each other by collagen.[5,6,7,8,9]

On ultrasonography, desmoid tumors appear as well-defined lesions with variable echogenicity.

The lateral borders may appear ill defined or irregular.[10] Computed tomography scan localizes the tumor and excludes metastasis and MRI reveals its homogenous and intense appearance to muscles on T1 weighted images and demonstrates heterogeneous signal intensity which is slightly lower than that of fat on T2 weighted imaging, depending on the accumulation of mucoid structures.[11]

Definitive diagnosis must be established with histopathologic analysis.[6]Wide local excision followed by reconstruction of the defect is the treatment of choice.[12] Anti-inflammatory treatment, hormone-therapy and chemotherapy were not shown to be effective or were only partially effective. These therapies are limited to patients, in whom resection is technically impossible because of a widespread tumor infiltration.[13,14,15]

CONCLUSION

Desmoid tumor is a rare entity. History like previous surgery, the age and sex of the patient, the location of the mass within the anterior abdominal wall and the imaging features helps in the diagnosis. Surgical resection with clear margins remains the principal treatment with the risk of local recurrence. The abdominal wall defect often needs reconstruction using flaps or prosthetic material.

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