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Original Article

Retrospective Study of Desmoid Tumors: Surgical Management

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Abstract

Background: Desmoid tumor is a variant of aggressive fibromatosis seen in females and often associated with Gardner's syndrome. Desmoid tumor infiltrates adjacent tissue without any metastatic potential.

Objectives: (1) The main aim and objective of this study are to prove that desmoids tumor needs surgical approach and improper surgery can lead to recurrence. (2) To identify the clinical presentation and age distribution. (3) To study the differential diagnosis.

Materials and Methods: Clinical study was conducted in the Department of General Surgery at Shimoga Institute of Medical Sciences from June 2015 to December 2016. All patients after investigations were subjected to the surgical procedure.

Results: Among six cases studied, five were desmoids tumors and one was parietal wall lipoma. Ultrasonography and fine needle aspiration cytology confirmed the diagnosis. All six cases were subjected to the surgical procedure. Among five desmoid tumors which were seen in females, three cases had the previous history of lower segment cesarean section.

Conclusion: This study reveals that all desmoids tumors should be widely excised along with healthy muscle fibers and mesh repair for the rent, gives good prognosis after the surgery.

Keywords: Aggressive fibromatosis, Desmoids tumor, Gardners syndrome, Mesh repair, Wide excision

INTRODUCTION

Desmoids tumor is a rare condition, which is a variant of aggressive fibromatosis usually seen in females which are benign and slow growing musculoaponeurotic tumor without any potential for metastasis. However, these tumors are locally aggressive in spite of their benign nature.[1]

Incidence of desmoids tumor is frequently seen following the previous history of lower segment cesarean section (LSCS) in females and also rarely associates with Gardner's syndrome.[2]

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This tumor presents itself as one of the differential diagnosis for right iliac fossa mass or mass over the scar tissue. It is a very slowly growing non-malignant tumor, with locally aggressive and damaging the surrounding tissue leading to destruction of the function of the parts.[3]

Ultrasonography and fine needle aspiration cytology (FNAC) will definitely differentiate desmoid tumor with other parietal wall swellings. Unless tumor becomes more prominent patient may not show themselves to surgical outpatient department as the tumor is painless and very slow growing. Sometimes the desmoids tumor is also a part of familial adenomatous polyposis coli.[3]

Aims and Objectives

1. The main aim and objective of this study are to prove that desmoids tumor needs surgical approach and improper surgery can lead to recurrence.
2. To identify clinical presentation and age distribution.
3. To study the differential diagnosis.

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MATERIALS AND METHODS

Materials for the clinical study were taken from the six cases admitted to the Department of General Surgery at Shimoga Institute of Medical Sciences from June 2015 to December 2016. A detailed clinical history and examination, routine blood and urine investigations done for all the patients. Ultrasonography and FNAC done for all the patients as a part of routine investigations.

Apart from one case which came out to be lipoma of parietal wall swellings, all were subjected to surgical procedure with wide excision and mesh repair and specimen was sent to histopathological examination (HPE).

RESULT

A total of six cases were studied from the age group of 30-40 years. Age incidence is shown in Figure 1, in which 30-35 years of age formed the maximum age group.

The most common mode of presentation was painless slow growing tumor in the right iliac fossa with firm in consistency and restricted mobility after putting the muscle into contraction.

Three cases had the previous history of LSCS, and two cases had no history of the previous surgery. Another case was parietal wall lipoma. The pie chart is showing desmoids following LSCS in Figure 2.

All cases were operated with wide excision with mesh repair except for parietal wall lipoma which was removed and sent for HPE.

Figure 3 showing mesh repair following wide excision of desmoids tumor from right iliac fossa anterior abdominal wall.

Figure 4 showing a histopathological picture of the specimen sent for HPE.

DISCUSSION

Desmoid tumor which is rare constitutes about 3% of all tissue tumors and 0.03% of all neoplasms.[4] The usual site includes arms, legs, abdomen, and chest in children and adults.[3] This tumor could be one of the components of Gardner's syndrome (familial polyposis coli), craniofacial osteoma, epidermoid cyst, and congenital hypertrophy of retinal pigment epithelium.[3] Desmoid tumor can be seen from the route of mysentry also.[5]

Desmoids tumor is a type of encapsulated fibroma which involves muscle and aponeurotic layers of anterior

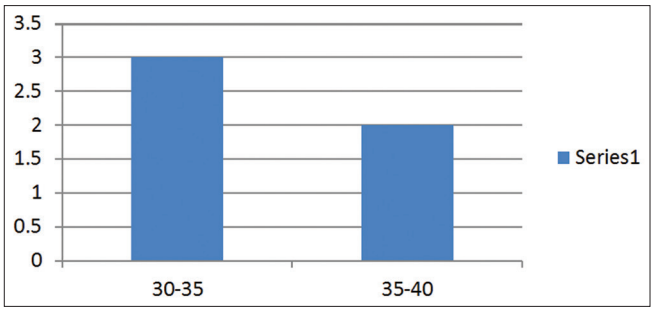

Figure 1: Age incidence from 30 to 40 years

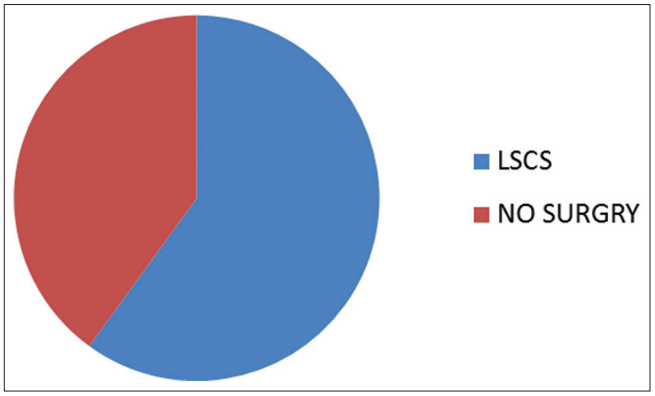

Figure 2: Desmoids following lower segment cesarean section

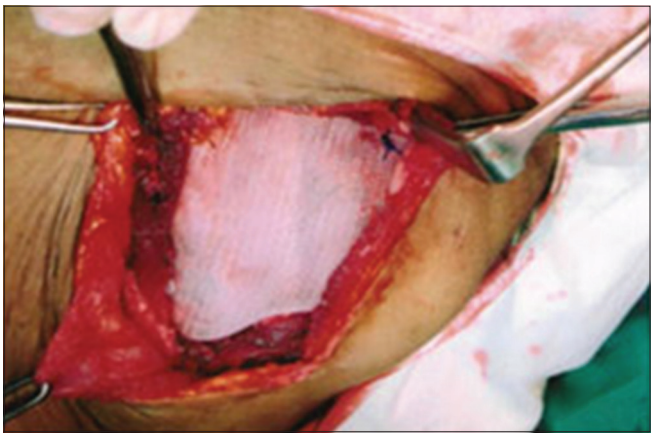

Figure 3: Mesh repair after wide excesion of desmoid tumour

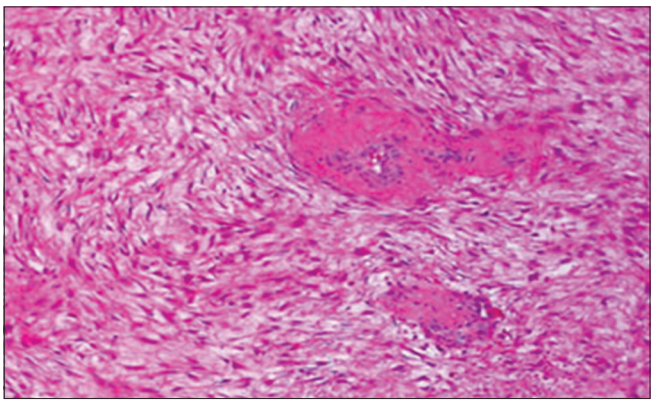

Figure 4: Histopathological picture of desmoid tumor

abdominal wall.[6] Sarcomatosis or metastasis is usually not seen.[7] In spite of adequate wide excision 10-15% chances of recurrence is known.[8] In cases of recurrent desmoids tumor or irresectable desmoids tumor, medical line of treatment such as sulindac, and tamoxifen can be tried.[9]

CONCLUSION

Desmoid tumor is a rare condition in which surgeons face difficulty in investigation and diagnosis. A proper wide excision of musculoaponeurotic layer of anterior abdominal wall with mesh repair reduces the risk of recurrence.

REFERENCES

1. Dangel A, Meloni AM, Lynch HT, Sandberg AA. Deletion (5q) in a desmoid tumor of a patient with Gardner's syndrome. Cancer Genet Cytogenet 1994;78:94-8.
2. Soravia C, Berk T, McLeod RS, Cohen Z. Desmoid disease in patients with familial adenomatous polyposis. Dis Colon Rectum 2000;43:363-9.
3. Rock MG, Pritchard DJ, Reiman HM, Soule EH, Brewster RC. Extra-abdominal desmoid tumors. J Bone Joint Surg Am 1984;66:1369-74.
4. Gansar GF, Markowitz IP, Cerise EJ. Thirty years of experience with desmoid tumors at Charity Hospital. Am Surg 1987;53:318-9.
5. Sutton RJ, Thomas JM. Desmoid tumours of the anterior abdominal wall. Eur J Surg Oncol 1999;25:398-400.
6. Mentzel T, KatenkampD. Myofibroblastic tumors. Brief review of clinical aspects, diagnosis and diffenrential diagnosis. Pathologe 1988;19:176-86.
7. Lewis JJ, Boland PJ, Leung DH, Woodruff JM, Brennan MF. The enigma of desmoid tumors. Ann Surg 1999;229:866-72.
8. Shields CJ, Winter DC, Kirwan WO, Redmond HP. Desmoid tumours. Eur J Surg Oncol 2001;27:701-6.
9. Waddel WR, Kirseh WM. Testolactone, sulindac, warfarin and Vitamin K1 for unresectable desmoid tumors. An J Surg 1991;161;416-21.

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