Postmenopausal Infiltrating Desmoid Tumor: A Rare Postoperative Complication

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CASE REPORT

Postmenopausal Infiltrating Desmoid Tumor: A Rare Postoperative Complication

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ABSTRACT

Postoperative desmoid tumors in postmenopausal women is a rare condition. Desmoid tumors are unusual soft tissue benign tumors that arise from musculoaponeurotic tissues. They also have ingrowing tendencies to intestines causing unusual clinical presentation. Recent surgical intervention is known in such cases. FNAC is not contributory due to hypocellularity. CT pelvis, abdomen is helpful. Surgical treatment is usually required. Case report is of this unusual condition in our practice.

Keywords: Desmoid tumor, Postmenopausal women, Intestine.

INTRODUCTION

Desmoid tumors are unusual soft tissue neoplasms that arise from fascial or musculoaponeurotic structures.[1] The incidence is 0.03% of all the neoplasms.[2] They are two to five times more common in females between 15 and 60 years. It is very rare in elderly patients.[3] We report a rare case of postoperative desmoid tumor in postmenopausal women, which was infiltrating into intestine.

CASE REPORT

A 65-year-old postmenopausal woman who was a known case of type II DM presented to us with a mass in lower abdomen since 15 days, following a total abdominal hysterectomy done 6 months back for fibroid uterus at our hospital.

On examination, there was a solitary mass in suprapubic region of size 6 × 8 cm, hard, irregular in shape and with restricted mobility. There was no organomegaly. Other than uncontrolled DM, routine investigations were within normal limits. TAS showed a heterogeneous mass of size 5.2 × 4.4 cm present in suprapubic region with circumferential wall thickening (6 mm) for a length of 3.2 cm of adjacent bowel wall and mesentery. Uterus and ovaries were not visualized. Impression given was either metastatic disease or primary bowel malignancy.

In view of malignancy either bowel or pelvic, CT scan was done. It showed a mass of size 7 × 5.7 cm with heterogeneous enhancement, multiloculated collection with thick irregular wall seen involving anterior abdominal wall (rectus muscle and subcutaneous fat) and pelvis (Figs 1 to 3). Underlying small bowel loop showed wall thickening and communication with the lesion (air pockets seen in fistulous tract) suggestive of multiloculated abscess/inflammatory lesion with fistulous communication with underlying small bowel loop.

Surgery opinion was taken. FNAC showed a benign spindle cell lesion but because of scanty cellularity biopsy was advised.

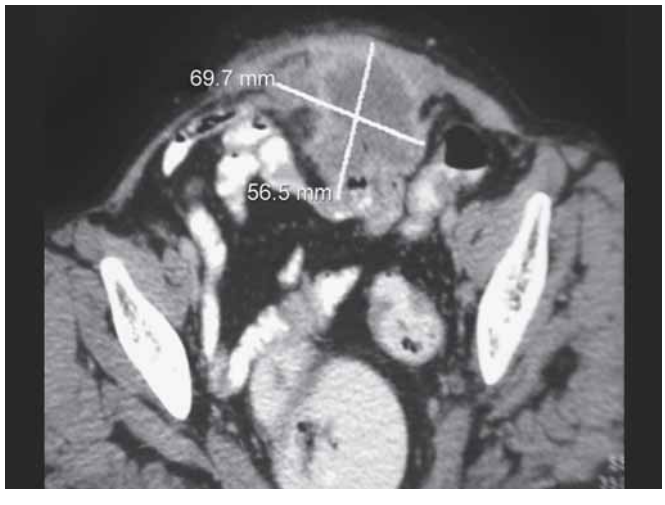

Fig. 1: CT scan of desmoid tumor extending from subcutaneous tissue to intraperitoneum

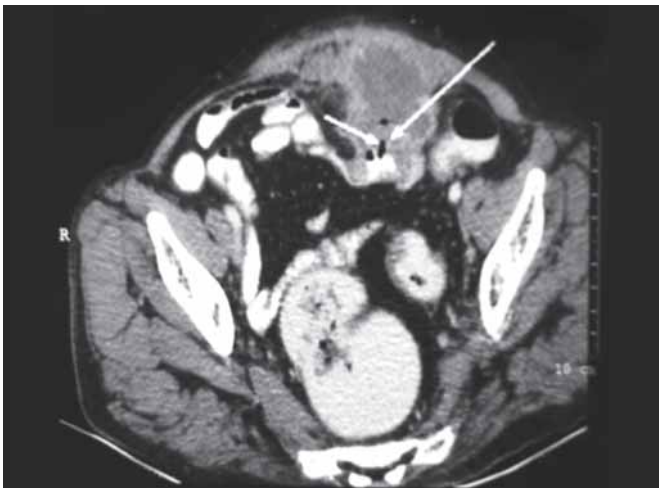

Fig. 2: CT scan showing infiltration of intestine

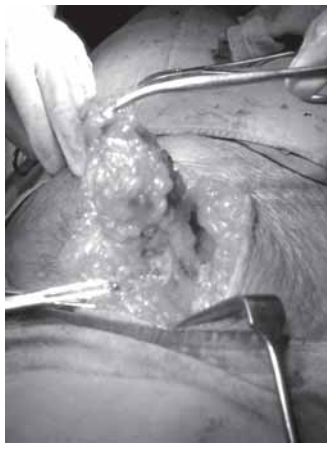

Fig. 4: Desmoid tumor infiltrating rectus sheath and rectus muscle

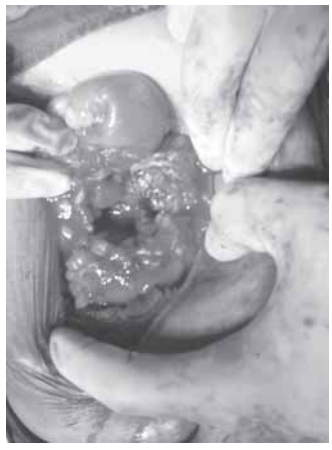

Fig. 5: Desmoid tumor infiltrating small intestine

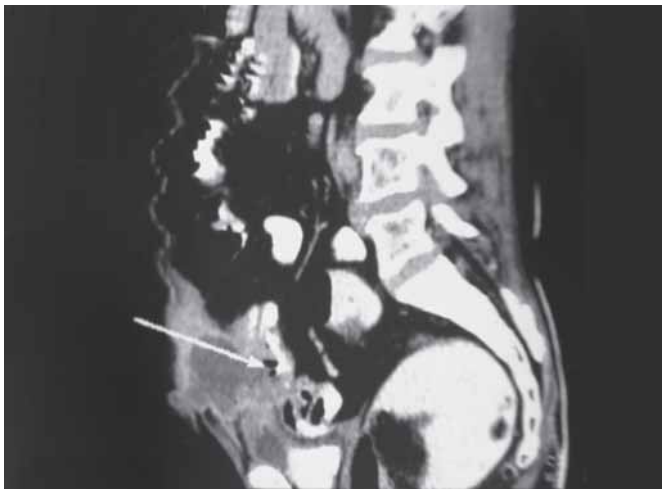

Fig. 3: Sagittal view of desmoid tumor infiltrating intestine

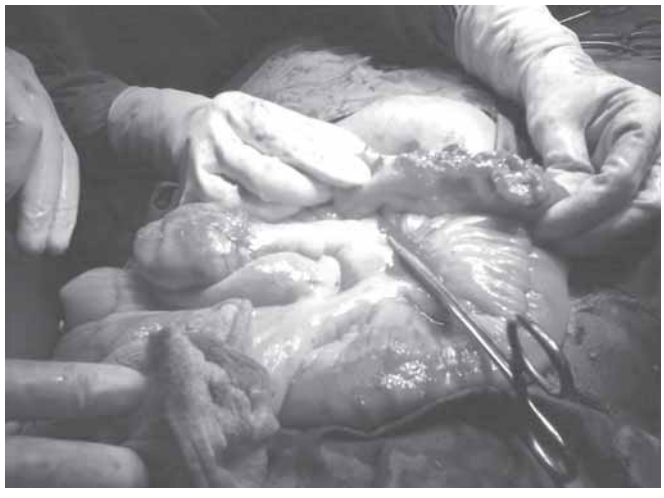

Fig. 6: Perforation of small intestine due to infiltration

Patient was posted for laparotomy after controlling her DM. Intraoperatively, there was an anterior abdominal wall mass arising from rectus muscle (Fig. 4) just below the previous hysterectomy scar, which was infiltrating into small bowel (Figs 5 and 6). So, part of the small intestine was resected and end-to-end anastomosis was done. Abdominal wall defect was repaired with prolene mesh. Postoperative recovery was uneventful. HPR showed a desmoid tumor infiltrating the small bowel with margins free from tumor.

DISCUSSION

The term desmoid was coined by Mullar in 1838 derived from Greek word *desmos* (tendon like).[4] Though the exact etiology is not known, inherited or mutant defect in growth regulation of connective tissue is the underlying cause.[5] They usually occur after surgical trauma (usually after cesarean section within one year), states of increased estrogen (pregnancy and OCPs)[5] and in patients with familial adenomatosis polyposis[1] (FAP or Gardner's syndrome: incidence 10-25%). It is very rare after hysterectomy, especially in postmenopausal patients. Some people even have reported its regression after menopause, ophorectomy and puberty in men.[5]

In our patient, the first thing we thought of was malignancy which might have been missed by HPR after simple hysterectomy. So her previous histopathology slides were reevaluated but did not show any evidence of atypia. The second possibility was some postoperative intestinal complication or a bowel malignancy. But patient did not have any bowel complaints either immediate postoperative or now. Since FNAC also did not give any definitive diagnosis, it was decided to go ahead with laparotomy.

Desmoid tumors are difficult to diagnose. High index of suspicion and correlation to predisposing factors are important for clinical diagnosis. Imaging findings are nonspecific and usually done to define the extent of tumor and to detect the complications.[6] Both CT and MRI are comparable for assessment of the site and margins of this tumor.[6] Histological diagnosis may not be possible by a needle biopsy because of low cellularity,[7] so an open incisional biopsy is often necessary.[1]

Treatment depends on the site of the tumor. Extra-abdominal desmoids are treated by wide local excision (Although, the lack of true capsule and nonpalpable extensions along the muscle bundles and fascial planes precludes reliable intraoperative clinical estimation of the tumor)[2] followed by radiation therapy

considering the functional and cosmetic outcomes.[8] In a study by V Kumar et al where postoperative radiotherapy was given for all patients with positive margins, did not alter the rate of local recurrence.[2] But in a large review study by Stoeckle et al gender, tumor location, resection margins and presentation (primary *vs* recurrent) were found to be the important risk factors for local recurrence.[2] So, though the role of postoperative radiotherapy is controversial, it is usually given whenever margins are positive. For patients who can't undergo surgery, radiation therapy with chemotherapy or other systemic medications can be used.[8] For intra-abdominal desmoids surgery is not the first choice, because they are difficult to resect curatively, high-risk of serious complications and have high rate of local recurrence.[8] Therefore, many medications have been tried like NSAIDs, antiestrogens (tamoxifen), c-kit tyrosine kinase inhibitors, HMGCoA reductase inhibitors (antifibrotic action), antisarcoma chemotherapy and interferon.[8] Recently, a case report by Koji ezumi et al showed that combination of Dacarbazine and Doxorubicin therapy is very effective for recurrent, aggressive intra-abdominal desmoids in a case of FAP.[8] Depending on the natural history of these tumors, it has described that 10% of tumors resolve spontaneously, 30% have cycles of progression and resolution, 50% remain stable and only 10% progress rapidly.[2] Based on this BP, Mikael Dalen et al did a retrospective analysis of patents who had not received any treatment and it was seen that 38% of tumors disappeared spontaneously, 25% decreased in size, 12% did not change and only 25% became larger.[9]

Desmoids are classified as benign tumors as they do not metastasize,[1] but they are locally infiltrative, most commonly bladder[2] and the mortality is around 1% due to involvement of vital organs.[9] 27% of intra-abdominal tumors cause serious complications like hydronephrosis, ureterocutaneous fistula, bowel obstruction, bowel perforation and aortic rupture.[5] Despite wide surgical margins, a local recurrence of 24 to 77% at 10 years has been reported and the median time for recurrence after surgery is 15 months.[2]

CONCLUSION

Though desmoid tumor is more common in premenopausal women and related to child birth, this should be kept as a differential diagnosis when a postmenopausal woman presents with mass per abdomen following any surgical procedure.

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