

Case Report

Desmoid Tumor in a Pregnant Woman: Case Report

Mojgan Karimi Zarchi^{1*}, Motahhareh Karimoddini², Mahboobeh Dashti³, Mahmood Akhavan Tafti⁴, Fahimeh Nokhostin⁵¹Department of Gynecological Oncology, Shahid Sadoughi University of Medical Science, Yazd, Iran²Department of Oncology, Shahid Sadoughi University of Medical Science, Yazd, Iran³Department of Obstetrics and Gynecology, Shahid Sadoughi University of Medical Science, Yazd, Iran⁴Department of Pathology, Shahid Sadoughi University of Medical Science, Yazd, Iran⁵Department of Obstetrics and Gynecology, Shahid Sadoughi University of Medical Science, Yazd, Iran

***Corresponding author:** Mojgan Karimi Zarchi, Department of Gynecological Oncology, Shahid Sadoughi University of Medical Science, Yazd, Iran. Tel: +983537240171; Email: drkarimi2001@yahoo.com

Citation: Karimi Zarchi M, Karimoddini M, Dashti M, Tafti MA, Nokhostin F (2018) Desmoid Tumor in a Pregnant Woman: Case Report. Ann Case Rep: ACRT-164. DOI: 10.29011/2574-7754/100064

Received Date: 12 March, 2018; **Accepted Date:** 26 March, 2018; **Published Date:** 04 April, 2018

Abstract

Desmoids tumor is a rare neoplasm comprising about 0.03% of all neoplasms and less than 3% of all soft tissue tumors and is associated with high estrogen states. Classic manifestation of it is in the form of an abdominal lump distinct from uterus. Contributing to the formation of the tumor are the traumas arising from pregnancy including previous cesarean-induced scars. Our case, a 29-year-old woman with a medical history of cesarean section, had been reported with the pregnancy age of 8 weeks and 3 days and heterogenic hypoechoic tumor the size of 28×36mm with a rather distinct sidelines in the soft tissue at the left side of the scar with the possibility of endometriosis but the size amounted to 62×38mm at the time of elective cesarean section. Following cesarean and removal of the fetus, the tumor being separated from the uterus and located in the abdominal wall, was taken out that was then pathologically diagnosed as desmoids tumor.

Keywords: Desmoid Tumor; Pregnancy

Case Presentation

The female patient G3L1Ab1 aged 29 had referred to the hospital due to PPROM 7 hour before hospitalization and following reduction of the movement of her fetus with a 2-year-old history of cesarean section and pregnancy age of 33 weeks and 3 days. While being examined, there was no sign of distinct amniotic discharge after inserting sterile speculum. Fern test was then ordered the result of which turned out to be positive. The patient underwent sonography at which a live and breach fetus was recognized at the pregnancy age of 33 weeks and 3 days and a normal heart beat in the endometrium; AFI was 60 mm. Additionally; a hypoechoic lesion the size of 25×55 mm was identified in the abdominal wall. The sonographic examinations (Administered by a Radiologist) had reported the presence of a hypoechoic, heterogeneous lesion of 28×36mm with a rather distinct sidelines in the left side of the cesarean scar suspected of endometriosis at the pregnancy age of 8 weeks and 3 days. The subsequent sonographies recognized increase in lesion size so that it was reported, by the week 13, to be

45×30mm, in GA = 18weeks and 3 days to be 56×32mm, and in GA = 31 weeks and 5 days a solid hypoechoic lump with macrolubule sidelines of 62×38mm. The patient was then prepared for an elective cesarean section after receiving antibiotics and 2 dose of Betamethasone for fetal distress. While she was unconscious, the examinations revealed presence of a lump in the abdominal wall with an approximate size of 90×75x40mm which was rigid with regular and fixed sidelines. Hence, the patient received spinal anesthesia and following prep and drep she was positioned in a supine position. First, the skin was incised by Pfannstiel procedure and then the abdomen layers were also penetrated into one by one. Myometrium was incised via Kerr procedure and the neonate was taken out by cephalic position with Apgar and weight of 10 and 2080g respectively. After complete extraction of the layers, myometrium was repaired and following hemostasis, peritoneum was also repaired. A greyish yellow lumps the size of 90x75x40mm with indistinct sidelines being at the superior side of the scar and attached to the abdominal fascia was identified; this was removed after presence of and consultation with a surgeon by gradually disintegrating the adhesion. For the possibility of endometriosis,

the lump was excised without removal of any soft tissue at the sidelines. The abdominal wall was then repaired and the lump was sent for pathological examinations; it was diagnosed as desmoid tumor (Figures 1,2). The patient, being in good condition, was discharged from hospital in 2 days. In regard with the pathology report as to the presence of desmoid tumor, the patient was referred to the surgeon who advised reopening the abdomen after which the lesion sidelines were also excised. By injection, the abdominal, pelvic and thoracic CT scan was also performed which proved to be uneventful. The patient was followed up for the recurrence of the tumor; there was none.



Figure 1: Desmoid tumor.

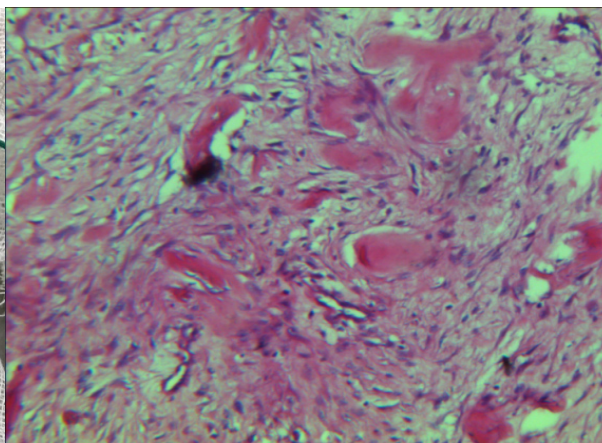


Figure 2: Desmoid tumor x100.

Discussion

Desmoid tumor, also known as invasive fibromatosis, is a rare neoplasm [1] comprising about 0.03% of all neoplasms and less than 3% of all soft tissue tumor [2]. It originates sporadically or partially from a genetic syndrome such as familial polipoadenomatosis or Gardner [1]. It prevails in 2.4 to 4.3 cases per million. The sporadic type which is more prevalent [3] is typically seen in young women either during or one year after pregnancy [1]. Desmoid tumors are associated with high estrogen states. In women, abdominal and extra abdominal desmoids occur in intra- or postpartum states the classic demonstration of which is in the form of an abdominal lump distinct from uterus [4]. Traumas arising from pregnancy including previous cesarean-induced scars [5] as well as exposure to high estrogen states can contribute to the formation of the tumors [6]. Some rare cases of desmoids tumor have been reported at the cesarean scar [7]. In a study by Mojibian et al (2012) a desmoid tumor at the lower wall of the abdomen with an increase in size during pregnancy was reported that was removed at the time of cesarean section [8]. For our reported case, there was also an increase in the size of the tumor mistakenly diagnosed as endometriosis during pregnancy. There are, in literature, other rare cases of desmoid tumors during pregnancy (at the cesarean section) reported by Franco et al. (1999), Herman et al. (1999) and Brezinka (1986) [7,9,10]. These tumors are often associated with traumas resulting from scar of the surgery or pregnancy [7]. However, simultaneous incidence of the lump with pregnancy is an unusual case and scholars are not of the same perspective regarding the resection time of the tumor. Surgery of these tumors

during pregnancy and simultaneous with cesarean section and delivery has been reported as successful. Desmoid tumor needs to be treated intensively [11]. In the report by Mojibian et al (2012), there was a case of this tumor the size of 140×175mm at the lower wall of the abdomen of a 30-year-old pregnant woman with the pregnancy age of 37 weeks and 2 days that was diagnosed as desmoid tumor and removed at the time of cesarean section [8]. In the Durkin et al. (2005) study, there was also a report of a 15 cm desmoid tumor located in the left rectus shield of a 19-week pregnant woman. After biopsy, the tumor was removed at week 20 and the patient then undertook vaginal delivery without any problem [12]. In our patient, the 90×75×40mm tumor was in the abdominal wall and was distinct at the cesarean time which was diagnosed as desmoid tumor by the pathologist. It is important to note that for the larger lumps located at the lower part of the abdomen, the procedure that gains access to the region is different from Pfannstiel section and is vertical-inferior below the naval. The skin must be incised from the region above the naval toward the inferior part of the sternum. The vertical incision on the uterus, performed from fundus toward the lower part and removal of the fetus by breach is also appropriate [13,14].

Given the fact that desmoid tumors are associated with high estrogen states [6] there are reports on the subsidence of such tumors after pregnancy; these lumps have, in cases, been responsive to antiestrogen drugs such as Tamoxifen [13,14]. The patient reported was also examined for estrogen receptor the result of which was negative. There is a 5-50% possibility of postoperative local relapse of desmoid tumor with, however, no metastasis. For a

satisfactory treatment of the tumor, it is removed with 2-4 cm of the tissues beyond its sidelines [15]. Moreover, to examine the cause of relapse, the patient must be followed up. Another point which needs to be explained pertains to the subsequent pregnancies for which, in the case of desmoid tumors, there is no contraindication. Although the tumor is reported to exist in other parts of the body, abdominal muscles are the most common location. Surgery is the elective remedial treatment and is satisfactory even if the sidelines are involved [16].

References

1. Townsend CM, Beauchamp RD, Evers BM, Mattox KL (2012) Sabiston textbook of surgery: the biological basis of modern surgical practice. 19th ed. Saunders p.1095-1096.
2. Reitamo JJ, Häyry P, Nykyri E, Saxén E (1982) The desmoid tumor. I. Incidence, sex-, age- and anatomical distribution in the Finnish population. Am J ClinPathol 77: 665
3. Griffioen G, Bus PJ, Vasen HF, Verspaget HW, Lamers CB (1998) Extracolonic manifestations of familial adenomatous polyposis: desmoid tumours, and upper gastrointestinal adenomas and carcinomas. Scand J Gastroenterol Suppl 225: 85-91.
4. Nugent KP, Spigelman AD, Phillips RK (1993) Life expectancy after colectomy and ileorectal anastomosis for familial adenomatous polyposis. Dis Colon Rectum 36: 1059-1062.
5. Soravia C, Berk T, McLeod RS, Cohen Z (2000) Desmoid disease in patients with familial adenomatous polyposis. Dis Colon Rectum 43: 363-369.
6. Goy BW, Lee SP, Eilber F, Dorey F, Eckardt J, et al. (1997) The role of adjuvant radiotherapy in the treatment of resectable desmoid tumors. Int J Radiat Oncol Biol Phys 39: 659-665.
7. De Cian F, Delay E, Rudigoz RC, Ranchère D, Rivoire M (1999) Desmoid tumor arising in a cesarean section scar during pregnancy: monitoring and management. Gynecol Oncol 75: 145-148.
8. Mojibian M, Shiryazdi SM, Binesh F, Sajjadnia A (2013) Desmoid tumor in abdominal wall in a Pregnant woman and cesarean section in these cases. Journal of Shahid Sadoughi University of Medical Sciences 21: 330-335.
9. Herman K and Marcinek A (1996) Abdominal desmoid in a 28-year-old pregnant woman. Ginekol Pol 6: 374-375.
10. Brezinka C, Huter O, Dietze O, Steiner H (1986) Desmoid tumor in a cesarean section scar as a labor complication in subsequent pregnancy Geburtshilfe Frauenheilkd 46: 908-909.
11. Johner A, Tiwari P, Zetler P, Wiseman SM (2009) Abdominal wall desmoid tumors associated with pregnancy: current concepts. Expert Rev Anticancer Ther 9: 1675-1682.
12. Durkin AJ, Korkolis DP, Al-Saif O, Zervos EE (2005) Full-term gestation and transvaginal delivery after wide resection of an abdominal desmoid tumor during pregnancy. J Surg Oncol 89: 86-90.
13. Clark SK, Neale KF, Landgrebe JC, Phillips RK (1999) Desmoid tumours complicating familial adenomatous polyposis. Br J Surg 86: 1185-1189.
14. Heiskanen I and Järvinen HJ (1996) Occurrence of desmoid tumours in familial adenomatous polyposis and results of treatment. Int J Colorectal Dis 11:157.
15. BruniCardi F, Andersen D, Billiar T, Dunn D, Hunter J, et al. (2009) Schwartz's principles of surgery. 9th ed. Mc Graw-Hill Professional p.506-507.
16. Robinson WA, McMillan C, Kendall A, Pearlman N (2012) Desmoid tumor in pregnant and postpartum women. Cancers 4: 184-192.