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A CASE OF TERATOMA EXHIBITING MALIGNANT TRANSFORMATION.

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ABSTRACT

Introduction: A mature cystic teratoma, also known as a dermoid cyst, is a benign tumor that typically contains tissues derived from all three germ cell layers. Mature cystic teratomas are usually slow-growing and non-aggressive, and they are discovered incidentally during imaging studies or surgery. The risk factors for malignant transformation post-menopausal women, large tumor size, rupture of the cyst and presence of immature components (such as neuroectodermal tissues). Malignant transformation is usually diagnosed by imaging studies, biopsy and evaluation of tumor markers such as AFP and β-hCG. Prompt surgical intervention is often necessary for management. **Case Study:** A 72year old, reported with mass per abdomen since 4 months associated with pain since 3 days. On abdomen examination patient had a solitary mass of 20x20 cms noted occupying the suprapubic, right & left iliac, umbilical, right & left lumbar regions. USG s/o large well defined thick wall midline abdominopelvic predominantly cystic lesion with solid components. After which she underwent Total Abdominal Hysterectomy with bilateral salpingo-oopherectomy. Intra-op findings were; a mass arising from Left ovary measuring 18x20 cm noted, right ovary normal. Histology suggestive of Teratoma with Malignant transformation (Malignant round blue cell tumour). Patient reviewed after 2 months with complaints of vomiting & backache. Serum AFP done; 15.3 ng/ml, beta-hCG; 5.64 mIU/ml. CT done s/o metastasis to para-aortic lymph node; she underwent Laparotomy with bilateral retro-peritoneal lymph node dissection & histo-pathology confirmed the finding of metastasis to lymph node. **Conclusion:** Malignant transformation of Mature Cystic Teratoma is a rare phenomenon seen preferable in post-menopausal period. Malignant transformation tends to have solid components & exhibit extensive local/distant metastasis. Hysterectomy with bilateral salpingo-oopherectomy is advised in post-menopausal patients.

KEYWORDS : Teratoma, Malignant, Malignant Round Blue Cell Tumour

INTRODUCTION

Mature cystic teratomas (MCT) of the ovary, commonly known as dermoid cysts, are the most common type of ovarian germ cell neoplasms (10 to 20%). They occur mainly in young women of reproductive age. Malignant transformation (MT) of MCT is a rare complication, with an estimated incidence of less than 2%. Most often seen in the postmenopausal period, it corresponds to the transformation of one of the components of the dermoid cyst into a cancerous tissue of a nongerminal nature.

Case Study

A 72year old, reported with mass per abdomen since 4 months associated with diffuse pain since 3 days. General physical examination was unremarkable. On abdominal examination, a solitary hard mobile mass of 20x20cms was noted, dull note on percussion. Bimanual examination revealed a mass corresponding to 20 weeks size, uterus couldn't be palpated separately.

Lab Report

Hb: 10.2 gm%, CA-125: 11.05 U/ml, AFP: 15.3 ng/ml, beta-hCG: 5.64 mI U/ml.

Surgery

Patient underwent Staging Laparotomy, proceeded with Total Abdominal Hysterectomy with bilateral salpingectomy with Left Ovariotomy and right Oophorectomy, infra-colic omentectomy and bilateral RPLND.

Histopathology Report

Teratoma with malignant transformation- undifferentiated carcinoma. Lymph node showing metastatic deposits.

DISCUSSION

Malignant transformation should be considered even in the most benign tumour in a post-menopausal woman. Here we discuss a case of 72-year-old women who presented with pain abdomen, discomfort and a palpable mass, which was later found to be mature cystic teratoma which had transformed into undifferentiated carcinoma. Cystic teratomas are usually asymptomatic tumours and are most commonly benign. However, in rare cases, it might transform into malignant form. A thorough workup plays an important role in patient management. Tumour markers like AFP, HCG and LDH play a role in diagnosis and follow up. The definitive management of cystic teratoma is surgery. However, in elderly age group, a multi- disciplinary team involving surgeon, gynaecologist, radiologist and oncologist should work together to plan a patient centred treatment strategy to provide improved patient outcome.

CONCLUSION

Malignant transformation of mature cystic teratoma is a well known but uncommon phenomenon. There is currently no formal diagnostic criterion before the histological analysis. An attempt is made to adapt the surgical aggressiveness according to the age of the patient. Conservative surgery is reserved for young women, especially nulliparous who wish to preserve fertility. Hysterectomy and bilateral salpingo-oophorectomy are advised in postmenopausal patients.

Image 1: Specimen excised post surgery of Teratoma

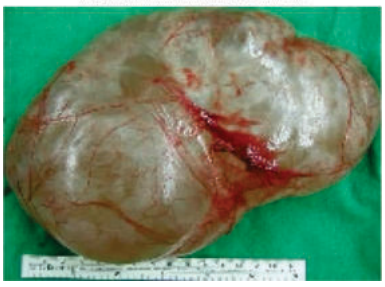


Image 2: Histopathology Image of Specimen Excised in 5x

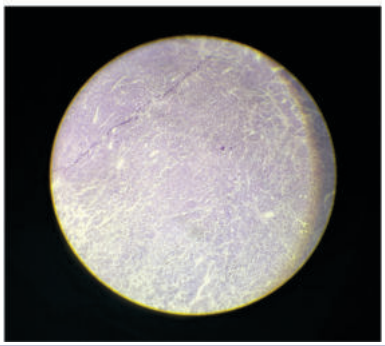
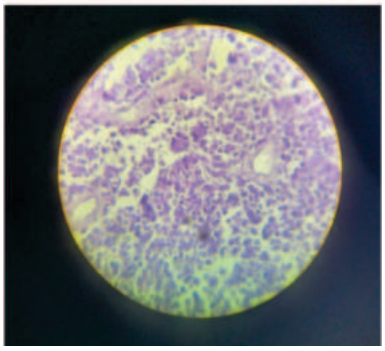


Image 3: Histopathology Image of Specimen Excised in 40x



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