



RESEARCH ARTICLE

MANAGEMENT OF AN IMMATURE TERATOMA IN A YOUNG WOMAN DESIRING PREGNANCY : A CASE REPORT

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Abstract

Immature teratoma is a rare type of germ cell tumor that primarily affects young women and can present with diverse symptoms. We present a case of a 20-year-old female with a large abdominopelvic mass diagnosed as an immature teratoma. The patient's chronic abdominopelvic pain and weight loss posed diagnostic challenges, but comprehensive diagnostic workup facilitated timely diagnosis and management. Radical surgery is the primary treatment option for immature teratomas, but alternative treatments such as chemotherapy may be appropriate in selected cases, particularly in young women with a desire to preserve fertility. A patient-centered approach is crucial for optimal outcomes. Further research is needed to determine the optimal chemotherapy regimen and duration of treatment for immature teratomas.

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Introduction:-

Immature teratoma is a rare type of germ cell tumor that primarily affects young women. It is often asymptomatic in the early stages, and symptoms, when present, are usually nonspecific and can be mistaken for other conditions. This case report presents the clinical management of a 20-year-old female with a large abdominopelvic mass, subsequently diagnosed as an immature teratoma. The case highlights the importance of a comprehensive diagnostic workup, including imaging and tumor marker assessment, to facilitate timely and accurate diagnosis and effective management of this rare condition. The report also emphasizes the importance of a patient-centered approach in decision-making for optimal outcomes.

Case Presentation

This is a case study of a 20-year-old unmarried, nulligravida female patient with no significant medical history who presented with chronic abdominopelvic pain. The pain was effectively managed with analgesics and there were no other associated urinary or other symptoms. The patient had also experienced a recent weight loss of 15 kg over three months, and presented with general malaise, but no fever. On examination, the patient was conscious and hemodynamically and respiratorily stable, with a blood pressure of 12/7 cmH. During gynecological examination, a painful, large abdominopelvic mass was noted in the hypogastric region, extending beyond the umbilicus. Vaginal and speculum examinations were not conducted as the patient reported being a virgin.

A transabdominal pelvic ultrasound was performed, which revealed a vascularized abdominopelvic mass with both solid and cystic components. **FIGURE 1**

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Blood tests for tumor markers, including CA125, BHCG, and aFP, were negative. A TAP CT scan was then performed, which revealed a solid-cystic mass in the right ovary with fatty and calcified components, suggesting an immature teratoma.

The patient underwent a right annexectomy with multiple biopsies **FIGURE 2**, which confirmed the presence of an immature teratoma in anatomopathological exam **FIGURE 3**. Radical treatment options were discussed with the patient, but she declined due to her desire to conceive. Therefore, chemotherapy was proposed and the patient responded well to treatment.



Figure 1:- Ultrasound showing the mass characteristics.

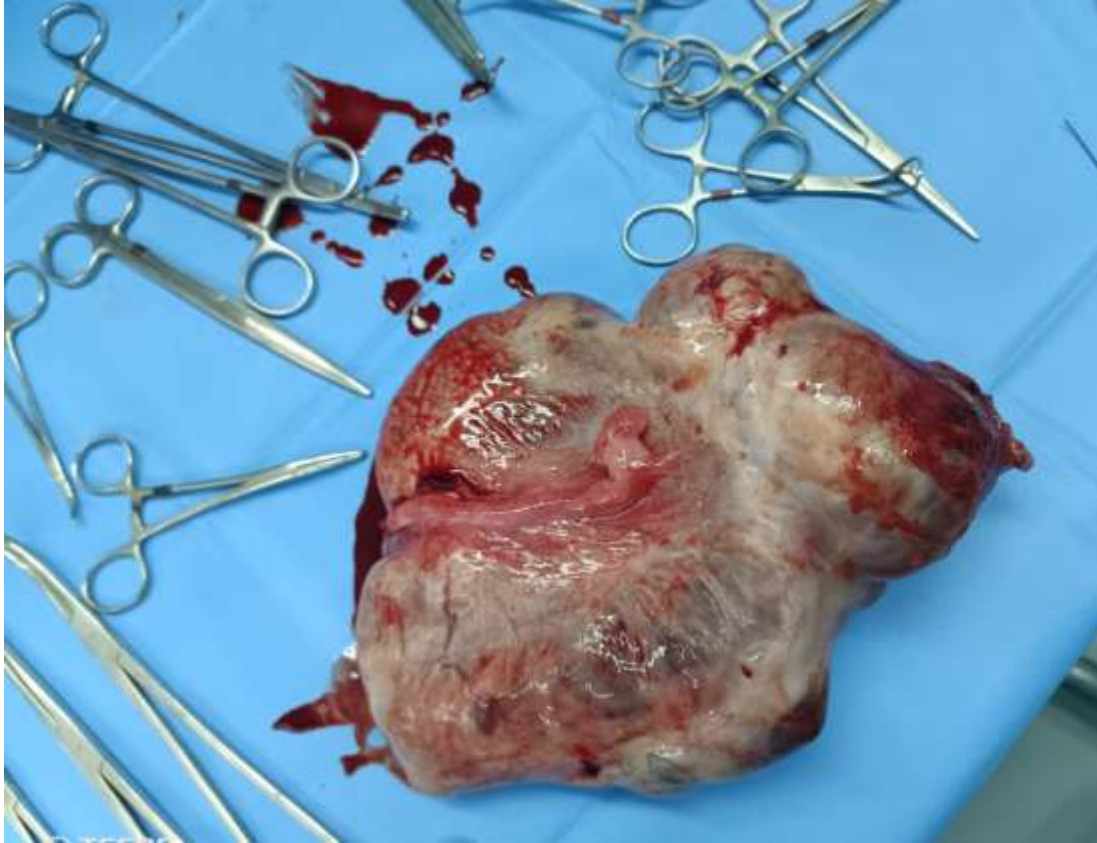


Figure 2:- Macroscopic aspect of the teratoma.

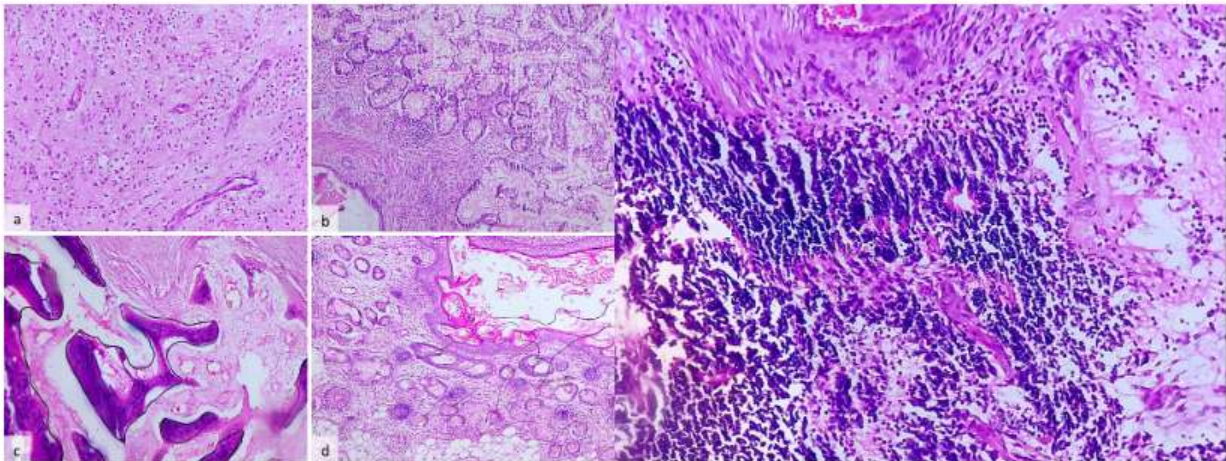


Figure 3:- (1) H&E photomicrographs showing various types of tissues found within the cyst, cerebral (a), digestive (b), bone (c) and cutaneous tissue (d).

(2) Numerous foci of immature neuroepithelial component were detected.

Discussion:-

The case presented highlights the challenges in diagnosing and managing an immature teratoma in a young female patient with chronic abdominopelvic pain and weight loss. The presentation of immature teratomas can be diverse, and the diagnosis requires a multidisciplinary approach with careful consideration of the patient's clinical history, examination findings, and imaging results.

Immature teratomas are rare ovarian neoplasms that account for less than 1% of all ovarian tumors. They are most commonly diagnosed in young women in their second and third decades of life, and can present with a variety of symptoms, including abdominal pain, bloating, and distension, as well as fever, weight loss, and malaise. However, the symptoms are often nonspecific and can mimic those of other ovarian tumors or gynecological conditions, making diagnosis challenging.

In this case, the patient presented with chronic abdominopelvic pain and weight loss, which are common symptoms of ovarian cancer. However, the negative results of tumor marker tests, including CA125, BHCG, and aFP, suggested that the tumor was unlikely to be malignant. The ultrasound and CT scan revealed a solid-cystic mass with fatty and calcified components, which was suggestive of an immature teratoma. The definitive diagnosis was confirmed on histopathological examination of the biopsy specimens obtained during the right annexectomy.

The management of immature teratomas can be challenging due to their rarity and unpredictable behavior. Radical surgical resection is the primary treatment option, and is often curative for patients with early-stage disease. However, given the young age of the patient and her desire to conceive, radical surgery was not a viable option in this case. Instead, chemotherapy was proposed as an alternative treatment option, and the patient responded well to treatment.

The choice of chemotherapy regimen for immature teratomas is largely based on expert opinion and institutional preferences, as there is limited evidence from randomized controlled trials to guide treatment decisions. Platinum-based chemotherapy regimens, such as BEP (bleomycin, etoposide, cisplatin) and VIP (etoposide, ifosfamide, cisplatin), have been shown to be effective in the treatment of advanced-stage disease, and are often used as first-line treatment in young women with immature teratomas. The optimal duration of chemotherapy is also unclear, with some experts recommending three to four cycles of treatment, while others suggest a longer course of up to six cycles.

The case presented highlights the importance of considering immature teratomas in the differential diagnosis of ovarian tumors in young women. The diagnosis requires a multidisciplinary approach with careful consideration of the patient's clinical history, examination findings, and imaging results. Radical surgery is the primary treatment option for immature teratomas, but alternative treatment options, such as chemotherapy, may be appropriate in selected cases, particularly in young women with a desire to preserve fertility. Further research is needed to determine the optimal chemotherapy regimen and duration of treatment for immature teratomas.

Conclusion:-

This case highlights the importance of considering immature teratoma as a differential diagnosis in young women with abdominopelvic masses. A multidisciplinary approach involving imaging, tumor marker assessment, and histopathological examination is essential for accurate diagnosis and optimal management.

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