

Two cases of immature teratoma with positive reproductive outcomes

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Summary

The peak incidence of immature teratoma is in the early reproductive period of a woman's life and fertility preservation is an inevitable topic when discussing treatment options. We present two cases of immature teratoma with positive reproductive outcome. Our experience supports the standpoint that surgery alone is curative in most cases, irrespective of tumor grade. Bearing this in mind, the long-term effect of chemotherapy on ovarian function can be avoided and fertility, an important factor in the overall quality of life, can be preserved.

Key words: Immature teratoma; Fertility.

Introduction

Immature teratoma is the third most common malignant germ cell tumor of the ovary, and represents 15-20% of such tumors [1]. Immature teratoma of the ovary is uncommon and comprises less than 1% of ovarian teratomas, has a specific age incidence, occurs most commonly in the first decades of life and is virtually unheard of after menopause [2]. With respect to the peak incidence of the tumors in the early reproductive period of a woman's life, fertility preservation is an inevitable topic when discussing treatment options. We present two cases of immature teratoma with positive reproductive outcomes.

Case Reports

During a routine gynecologic examination, a cystic tumor of the right ovary was diagnosed in a 27-year-old nullipara. Ultrasonographic examination confirmed a cystic lesion with a solid component measuring 4 x 3 cm. A subsequent ultrasound scan performed one month later demonstrated the growth pattern of the tumor which measured 10 x 8 cm. The second patient, a 30-year-old woman para 1, palpated a mass in the lower portion of the abdomen. Ultrasound scan showed a large cystic tumor of the right adnexa with a solid component measuring 13 x 11 cm.

In both cases management consisted of a right salpingo-oophorectomy, biopsy of the left ovary and omentum, and sampling of the peritoneal fluid. Histopathologic analysis identified immature teratoma with predominance of immature glial tissue. Both lesions were classified as immature teratomas, staged as FIGO Ia, tumor grade 1. No adjuvant therapy was utilized. At regular follow-ups both patients remained disease-free. Fourteen months after surgery, the first patient became pregnant and delivered a healthy term infant. Three years following the surgery the second patient became pregnant as well.

Discussion

Since most of these tumors occur in adolescence or early adulthood, the preservation of the ovarian endocrine and reproductive functions is an important issue. Fortunately, localized tumors in Stage I are found in 50 to 80% of patients. Therefore, for a premenopausal patient whose lesion appears to be confined to a single ovary, unilateral salpingo-oophorectomy and surgical staging seems to be the appropriate management. Patients with Stage Ia, grade 1 tumors have an excellent prognosis, and no adjuvant therapy is necessary. Adjuvant therapy consists of multi-drug combination chemotherapy which may decrease or deplete primordial follicles. Although the majority of young patients recover well from ovarian damage within several months following chemotherapy [3], in terms of ovarian endocrine function, this approach clearly influences ovarian reproductive function. Ovarian dysfunction is dependent on numerous factors, such as the type and dosage of cytotoxic drugs, duration of chemotherapy and the patient's age. Still, there is no means of predicting the effect of chemotherapy on ovarian function. In contrast, in view of the low suspicion of malignancy in young patients, incomplete surgical staging is common. It is interesting that this suboptimal approach does not appear to adversely affect outcome [4].

The two cases presented herein well illustrate the above-mentioned postulate. We diagnosed a unilateral ovarian tumor and performed laparotomy with unilateral salpingo-oophorectomy in both cases. Despite the suboptimal surgical staging, both cases were staged as Ia, grade 1 immature teratomas. Close observation following the surgery and histopathologic diagnosis were performed. Today, both patients are disease-free and have offspring.

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Conclusion

Along with other published papers addressing this issue, our experience supports the standpoint that surgery alone is curative in most cases, irrespective of tumor grade. Bearing this in mind, the long-term effect of chemotherapy on ovarian function can be avoided and fertility, an important factor in the overall quality of life, can be preserved.

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