

A Rare Case of Virilizing Ovarian Fibrothecoma in A Teenage Girl

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Abstract

Ovarian fibrothecomas comprise tumors in the spectrum of ovarian sex cord / stromal tumors where there are components of both an ovarian fibroma and an ovarian thecoma. They account for 3-4% of all ovarian tumors. Most occur in adult women, with 65% in postmenopausal women. However, it represents only 2% of pediatric ovarian tumors. They are the most common benign solid ovarian tumor. The tumors are usually hormonally inactive but can be estrogenic or sometimes androgenic. Here we are reporting a rare case of a 15-year-old girl presenting with primary amenorrhea, severe hirsutism and finally diagnosed with ovarian fibrothecoma. After surgical removal of the tumor, a dramatic response was observed as the patient developed menarche. She was relieved of her hirsutism by laser therapy later, but her deep voice remained the same.

CBMJ 2024 January: vol. 13 no. 01 P: 95-97

Keywords: Hirsutism, amenorrhea, benign ovarian tumor, teenage girl

Introduction

Sex cord stromal tumors represent approximately 8% of all ovarian neoplasms.¹ Tumors arising from the ovarian stroma are composed of either fibroblasts (fibroma) or plump spindle cells with lipid droplets (thecoma) and many tumors contain a mixture of these cells and called fibrothecoma are relatively common and accounts for 3-4% of all ovarian tumors.² The mean age of occurrence is 45 to 55 years.^{3,4} Pure thecoma are rare, but tumors in which these cells are predominant are hormonally active.²

Case Summary

A 15-year-old unmarried girl came to a specialist dermatologist with the presenting complaints of masculinizing features of severe hirsutism and deep voice along with primary amenorrhea and underdeveloped breast. Investigation through ultrasonogram of lower abdomen revealed a left ovarian solid mass. The uterus and cervix were unremarkable. Hormones study showed serum testosterone level of 228.62 ng/dl, TSH was 2.12 mIU/ml, prolactin was 15.30 ng/ml, and

estradiol/estrogen was 37.62 pg/ml. Moreover, anti-mullerian hormone was found to be 1.29 ng/ml, FSH was 0.97IU/L and LH was 0.35 IU/L. Then the patient underwent surgical operation, and the mass was removed. Histopathological examination of the excised specimen was done. After one week of operation, the patients developed menarche and post-operative follow up revealed a decreased testosterone level.

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Fig. 1: Severe hirsutism was observed in the patient.



Fig. 2: Surgical removal of the tumor.



Fig. 3: Cut sections of the tumour show solid whitish and yellowish surface.

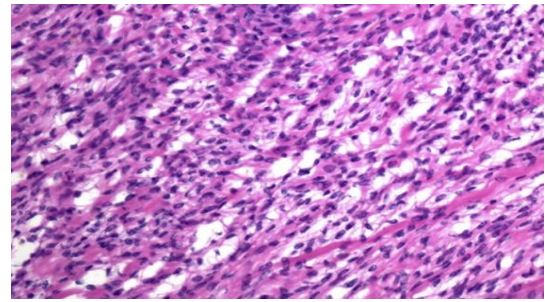


Fig. 4: Histopathological examination showed a benign tumor composed of an admixture of fibrous and thecomatous elements.

Discussion

Ovarian thecoma-fibroma is one of the benign variants of sex cord stromal tumours which affect women infrequently.^{2,5,6} However, its clinical presentation is variable and non-specific.⁷ It has a wide range of clinical manifestations due to various factors but can also be asymptomatic.⁸ Some may present with amenorrhea/ oligomenorrhea and slowly progressing virilization.^{9,10} It may be presented with features like hirsutism and a deep voice. Our patient had primary amenorrhea, hirsutism, and deep voice. This case highlights that fibrothecoma is the possibility of the menstrual irregularities in the young women. The patient was only 15 years old, younger than usual, presented with hirsutism and primary amenorrhea and lower abdominal lump. Patients with ovarian thecoma-fibroma who have menstrual disorder may demonstrate derangement in hormone profile,^{5,9,10} as same as observed in our patient. The treatment is usually individualized but surgical removal of ovarian mass, histopathology and follow up have been commonly reported.²⁻⁴ Surgical removal of the solid ovarian tumor is recommended for proper diagnosis, curative purpose and to reduce the

probability of malignancy and recurrence. Diagnosis is to be confirmed by histopathology.^{2,3} Soon after surgery, the patient had menarche. She was relieved of her hirsutism by laser therapy later, but her deep voice remained the same.

Conclusion

Fibro-thecoma is a benign tumor of the ovary, which is very rare in young patients and an important cause of amenorrhea and as well as masculinizing features. A careful clinical evaluation, surgical operation (excision) followed by histopathological diagnosis are recommended.

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