

Case Report

Follicular Fibroma Combined with Lymphoma: A Case Report and Literature Review

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Abstract

Follicular theca fibroma is a benign tumor originating from ovarian sex cord stromal cells [1]. Due to the coexistence of follicular theca cells and fibroma, it is called follicular theca fibroma. Follicular theca fibroma is a relatively rare ovarian tumor, accounting for only 4% of ovarian tumors [1,2]. However, it is the most common benign solid tumor of the ovary, which is more common in elderly women, especially in perimenopausal or postmenopausal women (average age around 60 years old); 10% of cases occur under 30 years old, but the pre adolescent incidence rate is extremely rare [1,3].

Case review

Basic information

The patient, a 72 year old female, was hospitalized due to post activity palpitations and shortness of breath. During the hospitalization, a large cystic solid mass in the pelvic cavity was accidentally discovered by abdominal ultrasound. The patient has no other symptoms except for coughing and expectoration. Gynecological examination: palpable mass of fetal head size in pelvic and abdominal cavity, Medium texture, no tenderness, moderate in activity.

Imaging examination

Ultrasonography shows a 14.2 x 6.9 cm cystic solid mixed light mass with clear boundary can be seen in the pelvic cavity, mainly cystic, considering the possibility of Cystadenoma (Figure 1). CT shows that multiple round like solid masses are seen in the lower abdomen and pelvis, and some of them are cystic, with uneven internal density and clear boundary. The source of accessories should be considered as neoplasm (Figure 2). MRI: Multiple lumps of equal or slightly longer T1 or slightly longer

T2 mixed signal shadows can be seen in the lower abdomen pelvic cavity, with irregular morphology, and the larger ones are about 11.3 cm in size x 7.9 cm x 10.6 m, the boundary is not clear, the solid part of the enhanced scan is slightly uneven enhanced, showing delayed enhancement, and the cystic component is not significantly enhanced, considering neoplasm: may be sex cord-stromal tumours or cystadenoma (Figure 3).

Gross morphology

There is a huge cystic solid mass in the pelvic cavity, approximately 21.5 cm x 19 cm x 10 cm, with a smooth surface and a lobulated shape. The solid part has a tough gray white material on the cut surface, and the cystic area contains a light yellow clear liquid.

Pathological diagnosis

Microscopically, most of the areas are spindle shaped cells with mild atypia, accompanied by edema and hyaline degeneration; In local areas, a large number of atypical small round cells can be seen diffuse infiltration; The cystic area contains a light yellow clear liquid, and the cyst wall is covered with a single layer of flat epithelium.

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Diagnosed as that the spindle cell region is ovarian theca fibroma, the cystic region is serous cystadenoma, and the small round cell region is non Hodgkin's diffuse large B-cell lymphoma (non germinal center origin).

Note: Considering that the majority of this tumor is follicular fibroadenoma and the lymphoma is only a focal lesion, it is considered to be an invasion of lymphoma in other parts. Please further clarify the source of lymphoma in combination with other examinations in clinical practice.

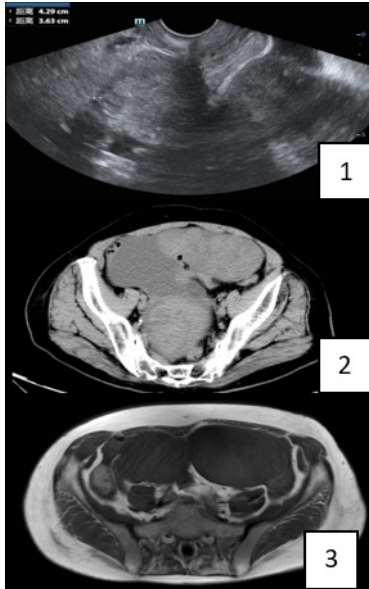


Figure 1: Abdominal ultrasound.
Figure 2: Abdominal Enhanced CT.
Figure 3: Abdominal MRI.

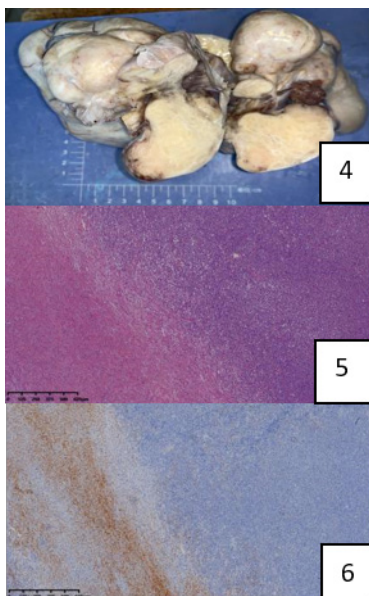


Figure 4: Gross morphology.
Figure 5: The tumor is composed of spindle cells and small round cells, HE $\times 40$.
Figure 6: Expression of CR (Calretinin) in spindle cell regions, IHC $\times 40$.

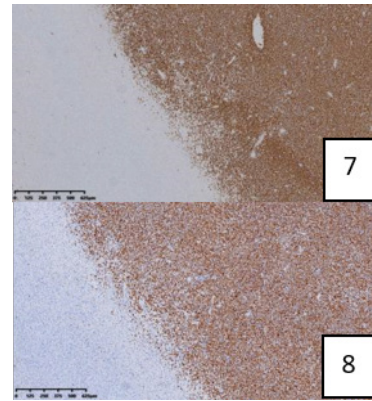


Figure 7: Diffuse expression of CD20 in the small round cell region, IHC $\times 40$.
Figure 8: Expression of Ki-67, IHC $\times 40$.

Discussion

Clinical characteristics

Follicular fibroadenoma usually occurs in perimenopausal or postmenopausal women, with an average age of around 60 years [3]. Common symptoms include postmenopausal bleeding or irregular menstruation, as well as non-specific symptoms such as abdominal pain or enlargement caused by tumor compression or bleeding. In a few cases, ascites may be present, and the occurrence of acute abdomen may indicate the occurrence of pedicle torsion of the tumor; Clinical symptoms may be related to estrogen levels. There are also literature reports of follicular fibroadenoma that occurs during pregnancy, and this tumor can also be associated with other gynecological diseases (such as uterine leiomyoma, endometriosis, teratoma, polycystic ovary syndrome, etc.) [4].

Imaging manifestations

Follicular fibroadenoma often presents as a circular or quasi circular mass on imaging, mostly occurring on one side with clear boundaries and complete capsule. Larger tumors may manifest as compression on surrounding tissues; Enhanced signals can manifest as uneven enhancement, with gradual delayed enhancement [5,6].

Pathological features

Generally, it appears as gray white nodules, with most nodules being solid, some may be accompanied by cystic changes, and a few may be accompanied by calcification and bleeding [4]. Microscopically, the tumor is composed of milder spindle shaped cells with mild cell atypia, arranged in a flowing or patchy pattern, and may be accompanied by interstitial edema, hyaline degeneration, and calcification; Vimentin and sex cord stromal cell markers inhibin, Calretinin, and SF-1 were all positively expressed in tumors [1].

Conclusion

In summary, the dual primary tumor of follicular fibroadenoma combined with lymphoma in this case is extremely rare. Based on its clinical and pathological characteristics, this article carefully identifies the underlying lymphoma components. Looking back at this case, the lymphoma component is focal, and it is necessary to remind the pathologist that when the tu-

mor component is complex and uneven in texture, extensive and sufficient sampling should be taken to avoid missed diagnosis. At present, there is no unified standard for the treatment of dual primary tumors, and the treatment plan needs to be determined individually [7]. However, determining an individualized treatment plan depends on clinical multidisciplinary discussions. Clinicians should strengthen their understanding of the disease, identify the primary site of lymphoma based on clinical data, and proceed with the next step of treatment under the guidance of multiple disciplines

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