SHORT COMMUNICATION

SOLITARY FIBROUS TUMOR OF THE UTERUS

Po-Wei Chu, Jah-Yao Liu, Yi-Jen Peng, Mu-Hsien Yu*

Department of Obstetrics and Gynecology, and 1Department of Pathology, Tri-Service General Hospital, National Defense Medical Center, Taipei, Taiwan.

SUMMARY

Objective: A solitary fibrous tumor is an uncommon soft-tissue tumor and rarely occurs in the uterus. We present such a case.

Case Report: A 78-year-old woman presented with low abdominal pain, and pelvic computed tomography showed a pelvic mass attached to the uterus. As malignancy could not be ruled out, exploratory laparotomy with complete surgical staging was performed. The results of frozen section showed benign mesothelioma-like tumor. Unexpectedly, further histopathologic results of the lesion revealed a solitary fibrous tumor, an outcome that was subsequently confirmed by means of CD34 immunohistochemical stain.

Conclusion: The behavior of solitary fibrous tumors arising from the uterus is difficult to evaluate; therefore, complete surgical excision featuring clear margins and comprehensive follow-up is recommended. [Taiwanese J Obstet Gynecol 2006;45(4):350–352]

Key Words: CD34 immunohistochemical stain, patternless pattern, solitary fibrous tumor

Introduction

A solitary fibrous tumor (SFT) is an uncommon soft-tissue tumor. It was first reported in the pleura [1], although more recently, it has been described as arising at a variety of other sites [2–4]. The unifying characteristic of SFTs is positive staining for CD34, an immunohistochemical stain for tumors originating from spindle cells. To date and to the best of our knowledge, there has only been one case of SFT of the uterus reported previously [5].

Case Report

A 78-year-old woman presented with the complaint of low abdominal pain with a palpable abdominal mass lesion of 2 weeks’ duration. Pelvic computed tomography showed a mass lesion next to the dome of the uterus (Figure 1A), which was suspected to be malignant. Surgical intervention was suggested and performed.

A pedunculated firm mass with central necrosis at the left of the uterine corpus was found and removed at the beginning of the operation for a better operating field (Figure 1B). Exploratory laparotomy with total abdominal hysterectomy, bilateral salpingo-oophorectomy, and tumor resection were smoothly performed. The tumor was sent for frozen section intraoperatively, which revealed a benign mesothelioma-like tumor. Further immunohistochemistry was performed to confirm the diagnosis. Unexpectedly, the histopathologic results of the lesion showed SFT, which was confirmed by CD34 immunohistochemical stain.

Microscopically, the tumor showed a patternless architecture and branching vessels. The spindle-shaped tumor cells had little cytoplasm, indistinct borders, and intermixed collagen bundles. Mitoses were virtually absent (Figure 2A). Tumor cells showed immunoreactivity for CD34 (Figure 2B), Bcl-2 and vimentin, but were negative for S-100 protein, cytokeratin, actin, calretinin and CD117. These results strongly supported the diagnosis of SFT.

The patient recovered from the operation uneventfully and there was no evidence of disease recurrence or metastatic disease at the 1-year follow-up.

*Correspondence to: Dr Mu-Hsien Yu, Department of Obstetrics and Gynecology, Tri-Service General Hospital, National Defense Medical Center, 325, Section 2, Cheng-Kung Road, Neihu, Taipei 114, Taiwan.
E-mail: falciparum93@yahoo.com.tw
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Discussion

The diagnosis of SFT of the uterus in the present case is supported by the characteristic “patternless pattern” morphology and immunohistochemical profile. SFTs are consistently immunoreactive for CD34 and sometimes for bcl-2 and CD99, but are usually negative for epithelial, vascular, muscle, and neural markers. As regards the situation of an elderly female presenting with recent-onset pelvic mass, with or without symptoms or signs, malignancy originating from the female genital organs should still remain the first diagnostic consideration, with a good differential diagnosis typically also including a range of other intraperitoneal and retroperitoneal tumors.

The majority of SFTs are benign, but some may invade local structures or metastasize. The histologic criteria of malignancy include nuclear atypia, hypercellularity, >4 mitoses/10 high power fields, high Ki-67 immunoreactivity (30%), and necrosis [6,7]. The present case showed gross central necrosis, but cellular atypia and mitoses were not detected, and the patient had an uneventful 1-year follow-up. Thus, the present tumor would appear to be benign, although histologic findings cannot always predict clinical behavior [7].

To the best of our knowledge, SFTs were first described as pleural lesions [1], but more and more extrathoracic sites are being progressively reported, including retroperitoneal lesions [3], orbital lesions [2], and kidney lesions [4], all of which appear to feature a more benign clinical course.

The behavior of SFTs arising from the uterus, however, would appear to be difficult or even impossible to evaluate. Therefore, complete surgical excision featuring...
clear margins and comprehensive follow-up is highly recommended.

References