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Solitary fibrous tumor arising in the mons pubis: a case report

D.H. Lee

Department of Obstetrics and Gynecology Yeungnam University School of Medicine, Daegu (Korea)

Summary

Solitary fibrous tumors (SFTs) are rare mesenchymal neoplasms of fibroblastic origin that mainly arise from the pleura. Although SFTs arising at numerous extrapleural locations have been reported, extrapleural soft tissue SFTs are extremely rare. The diagnosis of SFTs is based on histologic findings. However, given the histological variability of SFTs, immunohistochemical examination becomes important in their diagnosis. Complete surgical resection is the only and a very important prognostic factor and is recommended for the treatment of both benign and malignant SFTs with a curative intent. Here, the author reports what he believes to be the first case of an SFT originating in the mons pubis.

Key words: Solitary fibrous tumors; Extrapleural; Mons pubis.

Introduction

Solitary fibrous tumors (SFTs) are uncommon mesenchymal neoplasms that commonly arise from the pleura [1]. Although SFTs have been reported to arise from numerous extrapleural locations [2], SFTs in gynecological organs are extremely rare [3]. Here, the author reports a case of an SFT originating in the mons pubis. To his knowledge, no such cases have been previously reported.

Case Report

A 57-year-old menopausal woman presented with a mass on the mons pubis, which had been increasing in size for one year. A physical examination indicated a large, firm, and painless mass in the area. The patient did not have a significant medical history. Levels of tumor markers, including CA 19-9 and CA 125, were within normal ranges. Ultrasonography showed a lobulated mass in the subcutaneous tissue of the mons pubis (Figure 1A).

CT revealed a nine-cm heterogeneously and strongly enhancing lobulated mass in the subcutaneous fat tissue of the mons pubis, supplied by branches the superficial femoral arteries on both sides. The abdominal cavity did not show enlarged lymph nodes or fluid collection (Figure 1B).

The tumor of the mons pubis was completely resected. It was 20.2 grams in weight and 9.0×6.0×5.0 cm in size; it was encapsulated, well circumscribed, and multilobulated, with a smooth external surface. The cut surface showed a solid and cystic appearance (Figure 2A), and no necrotic area was observed on gross examination. Careful histological examination of the resected margin did not show tumor extension. On further histologic examination, the resected mass showed a patternless pattern of spindle cells (Figure 2B) and a mitotic count of one to two mitotic figures/high-power field (HPF), but no necrosis was observed. Immunohistochemically, the tumor cells were positive for CD34, CD99, and Bcl-2 and negative for smooth muscle actin, S100 protein, and p53 (Figures 2C, 2D, 2F). The Ki-67 proliferation index was approximately 1%. On the basis of these features, the tumor was diagnosed as an SFT of the mons pubis. No adjuvant treatment was administered. One month later, ultrasonography showed that there was no residual or recurrent tumor. The patient was alive without any signs or symptoms of relapse at 24 months after surgery.

Discussion

Here, the author reports a case of an SFT arising from the mons pubis. SFTs are rare spindle cell neoplasms of fibroblastic origin that usually arise from the pleura (pleural SFTs) [4]. Although SFTs have also been reported to arise at various other anatomic sites, extrapleural soft tissue SFTs remain extremely rare [2,3]. To the author's knowledge, this is the first reported case of an SFT arising in the mons pubis.

The clinical presentation of soft tissue SFTs is not specific [5]. In the case reported here, the patient complained of a slow-growing mass. CT has been reported to be a better investigative modality than ultrasonography for the detection of SFTs [6]. On CT, SFTs appear as well-circumscribed heterogeneous masses with variable degrees of enhancement [6], features noted in this case as well.

The diagnosis of SFTs is based on histologic findings. Tumors are usually composed of spindle cells arranged in a "patternless pattern"; however, the histological variability of SFTs makes immunohistochemical examination important in their diagnosis [7]. SFTs usually stain positive for CD34 and Bcl-2. Vimentin and CD99 are other common tumor markers. In contrast, these tumors are negative for cytokeratin, smooth muscle actin, desmin, S-100 protein, epithelial membrane antigen, and C-kit. In the case reported here, the tumor stained positive for CD34, Bcl-2, and CD99 and negative for smooth muscle actin, S-100 protein, and p53 [7].

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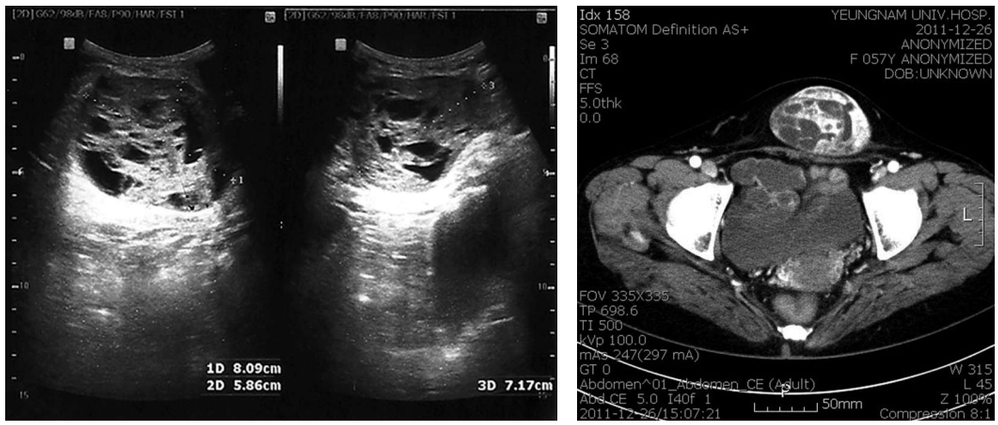

Figure 1. – (A) Ultrasonography shows a lobular and solid tumor in the subcutaneous region. (B) CT reveals a nine-cm heterogeneous and strongly enhanced mass.

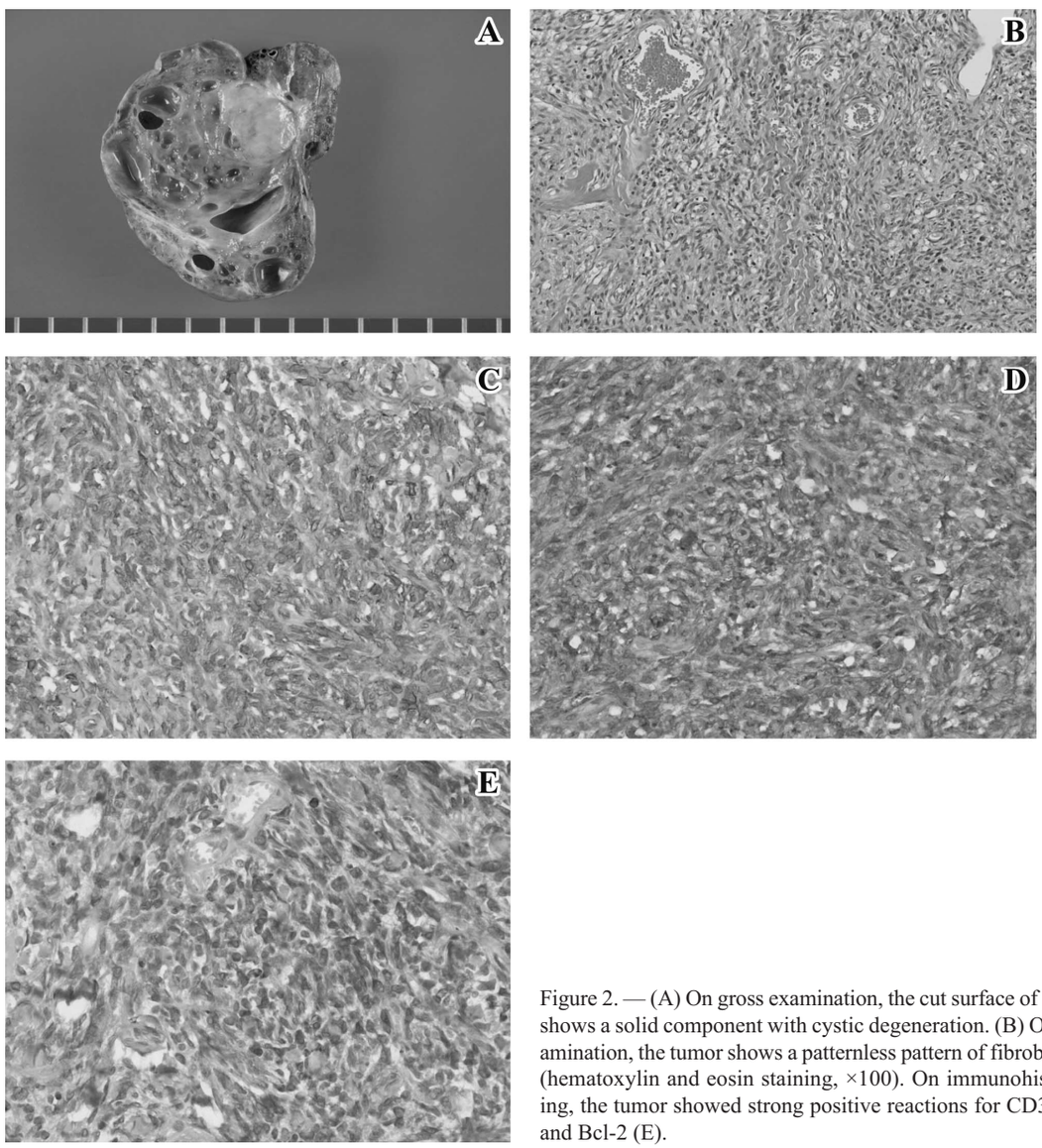

Figure 2. — (A) On gross examination, the cut surface of the resected tumor shows a solid component with cystic degeneration. (B) On microscopic examination, the tumor shows a patternless pattern of fibroblastic spindle cells (hematoxylin and eosin staining, ×100). On immunohistochemical staining, the tumor showed strong positive reactions for CD34 (C), CD99 (D), and Bcl-2 (E).

Extrapleural SFTs classically demonstrate more benign behavior than pleural SFTs [8]. However, approximately 10%–15% of extrapleural SFTs exhibit a malignant clinical course, being associated with recurrence patterns such as local recurrence or distant metastasis [8]. Among extrapleural SFTs, pelvic SFTs present with relatively more aggressive behavior [9]. England *et al.* reported the observation of pathological features suggesting malignancy, including hypercellularity, nuclear pleomorphism, high mitotic counts (> 4/10 HPFs), and hemorrhage and necrosis [10]. Gold *et al.* reported that SFTs greater than ten cm have a significantly poor clinical course in terms of metastasis [1].

Complete surgical resection is the only and a very important prognostic factor [10] and is recommended for the treatment of both benign and malignant SFTs with a curative intent [5].

The author reports herein what he believes to be the first case of an SFT arising from the mons pubis. Despite the rarity of extrapleural STFs, this diagnosis should be considered when a palpable mass is detected in the mons pubis, to facilitate early diagnosis and optimal treatment.

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Address reprint requests to:
D.H. LEE, M.D., Ph.D.
Department of Obstetrics and Gynecology
Yeungnam University School of Medicine
317-1 Daemyung-5-dong Namgu Daegu
705-717 (Korea)
e-mail: leebhy@ynu.ac.kr