Ovarian carcinomatosis presenting as bilateral inguinal hernia: a brief report

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Summary

The differential diagnosis for what may seem an inguinal hernia may be complex, as lateral pain may be of many types of origin. We report the case of a 48-year-old female patient who presented with a history of painful, progressively protruding soft bulging masses over the bilateral inguinal area and a 20-year history of head cancer and hepatitis B virus. Pathological analysis, gynecological ultrasound and abdominal computed tomography scan were required to make final determination. Final diagnosis was Stage IV ovarian carcinomatosis, which responded to chemotherapy. Initial diagnosis of inguinal hernia should not rule out other potential diagnoses, particularly in complex cases with other risk factors.

Key words: Bilateral; Differential diagnosis; Inguinal hernia; Ovarian carcinomatosis.

Introduction

The differential diagnosis for inguinal hernia is complex because the lateral pain may originate from the bowel, appendix, ovary, pancreas, spleen, or elsewhere [1]. Unusual ovarian presentations of inguinal hernia include an ovulating ovary within an inguinal hernia [2] and a misplaced ovary and fallopian tube [3], but such cases are rare.

Case Report

In July, 2008, a 48-year-old female patient presented with complaints of soft bulging masses over the bilateral inguinal area. The masses protruded while straining or standing and reduced with bed rest. The masses progressed over some weeks in size and pain. The patient was of average height and build (166.2 cm, 76.5 kg). She had hepatitis B virus but denied other systemic disease. She had undergone benign scalp tumor surgery 20 years before.

After an initial diagnosis of bilateral inguinal hernia, a herniorrhaghy was performed by a urologist. Both bilateral inguinal herniated sacs were resected with high ligation and mesh placed on each side. The herniated right inguinal sac with a mass inside yielded a tissue sample which was sent for pathological analysis. The pathology report indicated a mucinous tumor in the right frozen section of the soft tissue but the final pathology report revealed adenocarcinoma, primary unknown, in both the right and left inguinal excision of the soft tissue (Figure 1). Two weeks later, laboratory results indicated CEA was 18.01 ng/ml and CA-125 was 57.5 ng/ml.

At the same time, abdominal computed tomography (CT) showed no definite space-occupying lesion in the liver, spleen and pancreas, however ascites with scalloping of the liver surface, ascites in the right lower abdomen with septum and small soft tissue density, and an enlarged uterus with a 7.7 cm hypodense mass and a heterogeneously enhanced mass were present (Figure 2A). There was no definite retroperitoneal lymphadenopathy or hydronephrosis and the bilateral adrenal glands were unremarkable. The clinical impression was uterine tumor with ascites, suspected of being a uterine malignancy.

Three weeks after this observation, the patient was admitted for further survillance. Colonoscopy was negative for malignancy. D&C indicated an endometrial secretory phase, but was negative for malignancy. One week later, gynecological ultrasound found a right ovarian cyst 7.5 x 5.3 cm in size and an enlarged uterus with multiple myomas and mild cul-de-sac fluid accumulation. Abdominal sonography revealed mild ascites; an attempted aspiration failed. The patient was advised to undergo a course of chemotherapy but was hesitant.

She returned in two months (November, 2008), with a distended abdomen, feeling of fullness, bilateral lower abdominal pain off and on, and constipation lasting days. Laparotomy by a gynecological surgeon revealed a jelly-like mass filling the pelvic cavity (1300 cc), an enlarged uterus with multiple myomas, and bilateral ovarian tumors (right, 25 cm in diameter; left, 12 cm in diameter). The patient was diagnosed with ovarian carcinoma Stage IV with carcinomatosis. She subsequently underwent four courses of chemotherapy (Taxol + cis-

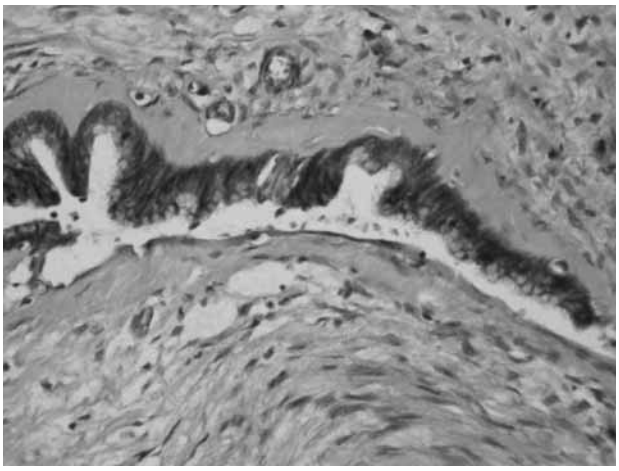

Figure 1. — Initial pathological finding of a mucinous tumor in the right frozen section of the soft tissue. The final pathology report revealed adenocarcinoma, primary site unknown, in both the right and left inguinal soft tissue.

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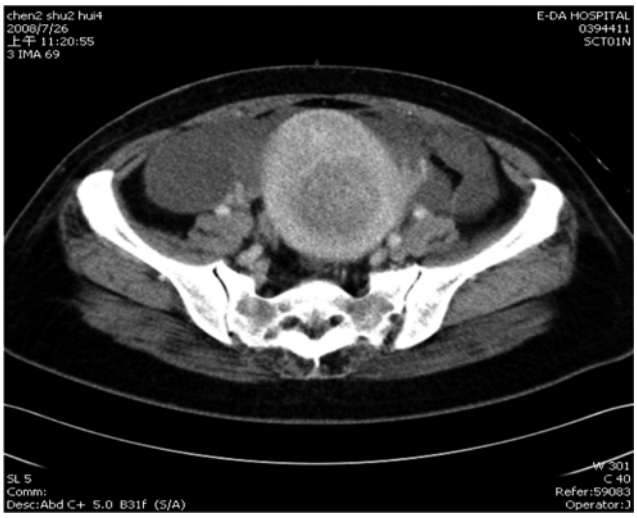
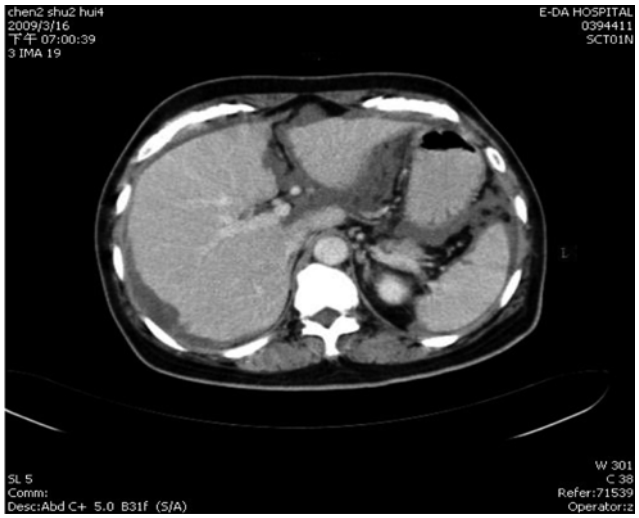
A) 



B)

Figure 2. — Initial abdominal CT scan showed loculated ascites in the right lower abdomen with septum and small soft tissue density. An enlarged uretrus with a 7.7 cm hypodense mass was found with the heterogeneously enhanced mass (A). Seven months later, CT scan showed a heterogeneously enhanced mass about 7.4 cm in diameter over the uterus, size unchanged from the previous CT study. Loculated ascites with an omental caking appearance and indentation of liver surface is noted, which is in favor of peritoneal pseudomyxoma (B).

platin). Follow-up after five months showed the CA-125 level had declined significantly from 72.7 ng/ml to 35.7 ng/ml.

Abdominal CT scan of the whole abdomen showed a heterogeneously enhanced mass about 7.4 cm in diameter over the uterus, with size unchanged from the previous CT study, normal liver, pancreas, and kidneys, and liver and spleen characteristics consistent with peritoneal pseudomyxoma (Figure 2B).

Discussion

Ovarian carcinomatosis presenting as an inguinal hernia has been reported [4], but it is rare. Diaz-Montes posited that difficulty in diagnosis may contribute to this rarity [5]. Such cancers may present as a chest wall nodule [6], pancreatic pseudocyst [7] or be discovered by accident [8]. As in this case, the carcinomatosis may present as an inguinal hernia [5]. CA-125 levels are used to screen for cancer recurrence, and have recently been shown to correlate with tumor stage, particularly in the presence of ascites, as in this case [9]. CT provides good sensitivity, specificity and accuracy, as well as anatomical detail to guide surgical treatment [10]. In summary, ovarian carcinomatosis presenting as a bilateral inguinal hernia is rare, and the differential diagnosis is required to sort out the inguinal hernia is often not straightforward.

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