Case Report

Spermatic cord metastasis as early manifestation of small bowel adenocarcinoma

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Abstract Malignant tumors of the spermatic cord are rare. There are a few case reports on spermatic cord metastasis from colonic, gastric, pancreas, and prostatic cancer. Here, we report a 36-year-old man with brucellosis presenting with spermatic cord metastasis as early manifestation of small bowel adenocarcinoma.

Key Words: Adenocarcinoma, metastasis, small intestine, spermatic cord

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INTRODUCTION

Malignant tumors of the spermatic cord are extremely uncommon. Prevalence of metastatic tumors of the spermatic cord account for less than 10% of malignant tumors of this site.[1,2] The most common primary site for spermatic cord metastasis is the gastrointestinal tract, pancreas, prostate, and kidneys.[2,3] There are few reports regarding spermatic cord metastasis in gastric,[4-7] colorectal cancer,[8-12] prostatic cancer,[13] and pancreatic adenocarcinoma.[2]

We present a 35-year-old man with brucellosis who had unilateral hydrocele, spermatic cord metastasis, and in whom we found small intestinal adenocarcinoma as the primary site.

CASE REPORT

A 35-year-old man presented with weight loss, anorexia, and painful right inguinal mass with referral pain to the testis. Physical examination revealed right inguinal firm and painful mass adhesive to the spermatic cord and new onset hydrocele. In medical history, he had brucellosis two years ago and had been treated with anti-brucellosis drugs. Sonography showed a solid hypoechoic mass measuring 16 × 11 mm in the right inguinal canal and normal sized, normal echoic right testis with localised fluid collection in the superio-lateral part of the right testis (epididymal cyst or hydrocele). In sonography, the left testis had normal size and echogenicity. He underwent biopsy of the right inguinal mass. During operation, we encountered a firm mass adhesive to spermatic cord vessels and vas deferens, so it was impossible to resect the mass completely; we then decided to do a biopsy from the mass.

The pathologist reported primary or metastatic adenocarcinoma, and then the patient underwent trans-inguinal radical orchiectomy with complete mass resection, according to the pathologist's report of metastatic adenocarcinoma of the spermatic cord; after the resection, the margin was free of tumor. Immunohistochemistry was positive for cytokeratin and Epithelial Membrane Antigen (EMA) and negative for Leukocyte Common Antigen (LCA), S100, desmin, vimentin, Neuron-Specific Enolase (NSE), thyroglobulin, Alpha-Fetoprotein (AFP), and Prostate-Specific Antigen (PSA). He was admitted with nausea, vomiting, and abdominal pain. Gastroenterologist consultation was done, after which upper gastrointestinal endoscopy and colonoscopy were recommended, both of which had normal result. PSA (free and total) was in normal range. Transrectal sonography revealed an

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area (13 × 17 mm) with non-homogeneous echogenicity in the peripheral side of the left prostate lobe and biopsy was done, which reported as normal prostatic tissue and one core was granulation tissue. Laboratory findings include: White Blood Cells (WBC) = 6700/μl [Polymorphonuclear Leukocytes (PMN) = 63%, Lymph = 27%), Hemoglobin (Hb) = 17.2 gr/dl, Platelet Count Test (PLT) = 217,000/μl, Fetal Bovine Serum (FBS) = 105 mg/dl, albumin = 4.9 g/dl, protein = 8.1 g/dl, Aspartate Aminotransferase (AST) = 25 U/L, Alanine Aminotransferase (ALT) = 58 U/L, calcium = 13 mg/dl, Na = 126 meq/L, K = 4.6 meq/L, Cr = 0.84 mg/dl, Urea = 24 mg/dl, Parathyroid Hormone (PTH) = 18 (NL:8-69) pg/ml, 2ME = 1/160, total bilirubin = 0.9 mg/dl, direct bilirubin = 0.28 mg/dl, Magnesium = 2.42 mg/dl (NL:1.8-2.6), Lactate Dehydrogenase (LDH) = 428 U/L, Alkaline phosphatase = 256 U/L. Wright = 1/160, Coombs Wright = 1/320. Hepatitis B Surface. Antigen (HbsAg), anti-Hepatitis C Virus Antibody (HCV Ab), and HIV Antibody (HIV Ab) all showed negative results. Thyroid function tests yielded normal results. Tumor markers including CA15-3, CA19-9, ß-Human Chorionic Gonadotropin (ß-hCG), and AFP were in normal ranges. Abdominopelvic computed tomographic (CT) scan showed severe distention in the stomach and jejunum. Serum 8 am basal fasting cortisol level was 29.01 ug/dl (Nl:6.2-19.4). Abdominopelvic sonography showed distention only in the gastrointestinal loops. Chest X-ray and brain CT scan were reported to be normal. Whole body bone scan was unremarkable. We consulted with infectious disease specialist who recommended starting anti-brucellosis therapy for the patient due to elevation of Wright's and Coombs Wright's tests. Therefore, we administered ofloxacin and rifampin for the patient.

In the hospital, his nausea and vomiting did not resolve and he developed a state of delirium and abdominal distention. In repeated physical examination, we found sinus tachycardia, tenderness, and guarding in abdominal examination. We sent for a surgical consultation, but before consultation his family got the patient released from the hospital. They took him to another centre and at that center with diagnosis of acute abdomen he had been underwent laparotomy. During operation, the surgeon noticed a small bowel loop with a stricture in the middle portion and a tumoral lesion in that area with serosal involvement. Small bowel tumor resection revealed small bowel adenocarcinoma with full thickness and vascular involvement and three nodes out of six lymph nodes were involved. Chemotherapy with Capecitabine-plus-Oxaliplatin (XELOX) regimen was started and continued at three-week intervals. At present, six months after the operation, he has a good general condition, without any metastatic symptoms and signs.

RESULTS

In this 35-year-old patient, inguinal pain and new onset hydrocele due to spermatic cord metastasis was the first manifestation of small intestine adenocarcinoma.

DISCUSSION

The most frequent primary tumors metastatic to the spermatic cord and epididymis are carcinomas of the stomach (42.8%) and the prostate (28.5%).[2] Of these metastases, 23.8% are subclinical and when discovered the diagnosis concerning the origin of the primary tumor is always wrong.[2] The average survival, subsequent to the diagnosis of the metastasis, is 9.1 months.[2] Fifty-four Japanese patients with metastasis from the digestive organs to the spermatic cord and/or the intrascrotal contents were analyzed. The most frequent primary site was the stomach and the most frequent metastatic site was the spermatic cord.[3]

We recommend radical orchiectomy and immunohistochemistry in any patient with firm, adhesive, tender, and hypoechoic spermatic cord mass. Although chronic epididymo-orchitis is reported in patients with brucellosis but, in this case of brucellosis, we found metastatic adenocarcinoma of the right spermatic cord. We should consider small intestine adenocarcinoma in any patient with spermatic cord metastatic adenocarcinoma. Abdominal pain, nausea, vomiting, abdominal distention, weight loss are important clues that guide physicians to perform further assessment for a possible gastrointestinal primary site. Normal upper gastrointestinal endoscopy and colonoscopy are not adequate to rolling out small intestinal malignancies, and then an upper gastrointestinal series or enteroscopy would be necessary in this setting.

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