Pelvic Inflammatory Disease in a Male-to-female Transsexual

Department of Emergency Medicine, Inje University Ilsan Paik Hospital, Gyeonggido, Korea

Hyunjong Kim, M.D.

We report on the case of a 29-year-old male-to-female transsexual with severe lower abdominal pain. Neovaginal discharge, direct and rebound tenderness in the lower abdomen were observed. Discharge and motion tenderness were detected during the pelvic examination. The blood test showed leukocytosis and elevated C-reactive protein level. Abdominopelvic computed tomography confirmed findings compatible with pelvic inflammatory disease. The patient was discharged after seven days of admission with broad spectrum antibiotics. This case suggested that diagnostic and therapeutic plans should be made with consideration for pelvic inflammatory disease in case of acute abdominal pain in male-to-female transsexuals.

Key Words: Abdominal pain, Pelvic inflammatory disease, Transgender persons

Introduction

Pelvic inflammatory disease (PID) is one of the most important causes of acute abdominal pain in female patients. Physical examination including pelvic examination, blood test, transvaginal sonography and computed tomography are generally considered as diagnostic tools for PID. Intravenous or oral antibiotics are the choice of treatment for this disease. Even though diagnostic and therapeutic plans of PID are well established as above, any physician can’t be sure that same plans can be equally applied to transsexual patients with acute lower abdominal pain because of the lack of experience and knowledge. In this report, we describe a transsexual patient that presented with general symptoms of PID, who was treated successfully by broad spectrum antibiotics.

Case Report

A 29-year-old male-to-female (MTF) transsexual patient presented to an emergency department with acute lower abdominal pain that had persisted for 2 days. The patient had neovaginal discharge for four days. The patient had undergone a surgical gender reassignment with penile skin graft six years ago, but was no longer taking hormonal augmentation therapy nor any other medications. There were no previous sexually transmitted diseases (STD), allergy, injecting drug use, or other serious illness. Upon arrival, her blood pressure was 98/64 mmHg, pulse rate was 79/min, and body temperature was 37.1°C. The physical examination revealed marked direct and rebound tenderness on the suprapubic area (NRS, Numerical Rating Scale; 8 point degree).

She complained of moderate pain during the pelvic examination (NRS 5 point). Serous discharge with bad odor was detected during the pelvic examination. The laboratory test showed leukocytosis (15,740/μL; normal range: 4,000 to 12,000/μL) with 80.2% neutrophils and the C-reactive protein level elevated to 49.1 mg/dL (normal range: <0.5 mg/dL). The urine analysis was unremarkable. A gram staining of high neovaginal smear found G (-) bacilli, G (+) bacilli, and G (+) cocci. A culture of the high neovaginal swab revealed a growth of Klebsiella pneumoniae. There was no laboratory evidence of HIV, Chlamydia trachomatis (C. trachomatis), and Neisseria gonorrhoeae (N. gonorrhoeae) infection.

Because it was necessary to rule out other surgical or...
medical conditions, an abdominal computed tomography (CT) scan was performed (Fig. 1, Fig. 2). The CT images revealed a fluid- and air-filled structure that seemed to be a neovagina with enhancing wall in the pelvic cavity with enhancing wall. Haziness in the pelvic omentum, minimal pelvic peritoneal thickening and a small amount of pelvic ascites were also detected. The patient was treated with broad spectrum antibiotics for seven days and was discharged with improved symptoms.

**Discussion**

PID is an inflammatory infection of the upper female genital tract involving the uterus and its adnexal and adjacent pelvic structures\(^\text{1,2}\). Two most common groups of microorganisms that cause PID are *C. Trachomatis* and *N. gonorrhoeae*, but the cause of PID is often polymicrobial and various microorganisms including *Klebsiella pneumonia*, have been reported\(^\text{3,4}\). The diagnosis of acute PID is classically based on clinical symptoms and findings from a physical examination including a pelvic examination. Laboratory test, endometrial biopsy, and imaging study such as abdominopelvic CT and ultrasonography are also used for diagnosis\(^\text{5,6}\).

Though there are various CT findings for PID, it has been known that typical findings are haziness or strand- ing of the pelvic fat, thickening of pelvic ligaments, engorgement of the ovary and uterus, enhancing and thickening of the fallopian tubes with fluid, the presence of a complex adnexal mass, and fluid collection in the cul-de-sac\(^\text{7}\).

Since 1931 when the first sex reassignment surgery was reported, many evolutionary techniques have been demonstrated. One of the most important interests of those methods was the neovaginal formation\(^\text{8}\). Following the penile skin grafting gender reassignment surgery that our patient had undergone, a neovagina is lined with stratified squamous epithelium that is relatively resistant to direct infection to form of a one-side closed pouch\(^\text{9}\). Because of these structural and histological characters, the pelvic cavity of a MTF transsexual is more difficult to be infiltrated by a pathogen than that of a woman.

Although typical signs were found during the pelvic examination, a classic diagnostic plan for PID could not be applied to this patient because of the anatomical differences and the lack of experience. In our patient, neovaginal wall enhancement and fluid collection were detected, and haziness in the pelvic omentum, minimal pelvic peritoneal thickening, and a small amount of pelvic ascites were also found on the abdominal CT scan. These findings corresponded to typical findings of

![Fig. 1. Abdominopelvic computed tomography. Haziness of the pelvic fat (arrow) and peritoneal inflammation (arrowhead).](image1)

![Fig. 2. Abdominopelvic computed tomography. Infected fluids collection in pelvic cavity (arrow). Loculated fluid collection with enhancing wall, increased attenuation of adjacent fat tissue and internal air-fluid level (arrow head).](image2)
PID, but the diagnostic methods of PID in a MTF transsexual are not yet established.

It has been a common sense that gynecological causes should be considered for the patients who visited an emergency department with acute abdominal pain. However, in case of a MTF transsexual patient with abdominal pain, it is very difficult to consider a gynecological disease as a primary cause of acute abdominal pain, because experience and anatomical knowledge are limited. This case suggests that PID can also be the cause of acute abdominal pain in a MTF transsexual patient, and the CT scan should be taken into consideration in early stage to find out PID and other possible causes at the emergency department.

REFERENCES