Round Ligament Varices Mimicking Inguinal Hernia during Pregnancy and Puerperium: A Case Report

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Summary. A 33-year-old woman presented with a painful groin mass underwent surgery on the third day postpartum under clinical diagnosis of irreducible inguinal hernia. Surgical exploration revealed a collection of thrombosed veins surrounding the round ligament of the uterus. Physicians should be alert to such a condition during pregnancy and puerperium.

Key words—inguinal hernia, round ligament, pregnancy, varicosity.

INTRODUCTION

Inguinal hernia is the most common disease causing groin mass. The diagnosis is not difficult. However, several diseases including lipoma¹, endometriosis², and embryonic remnants³, which show a similar appearance, should be considered in the differential diagnosis of inguinal hernia. We report here on a case of round ligament varicosities mimicking incarcerated inguinal hernia in a postpartum woman.

CASE REPORT

A 33-year-old woman was referred by a gynecologist due to a suspected irreducible inguinal hernia on her third day postpartum. The mass had appeared during the 32nd week of pregnancy but had rapidly increased and become painful about 48 hours after normal vaginal delivery. She had no bowel symptoms or abdominal colic. Abdominal examination disclosed a tender, elastic, firm mass in the left groin.

The mass had no cough impulse and was irreducible. Ultrasound examination showed a 6.0 × 4.0 cm, well-demarcated, oval mass characterized by a low echoic signal with spotty high echoes (Fig. 1). Laboratory data was normal excluding the white blood cell count and C-reactive protein level (11,000/mm³ and 2.5 mg/mL, respectively). Abdominal plain film was also normal. A diagnosis of irreducible inguinal hernia, probably containing omentum, was made, and the patient underwent emergency surgery.

Surgical exploration revealed that the swelling was caused by thrombosed varicose veins that were mainly located in the inguinal canal (Fig. 2). The varicosities originated from the pelvic veins, penetrated the deep inguinal ring, and surrounded the round ligament of the uterus. Passing the superficial inguinal ring, these varicosities vanished into subcutaneous tissues. In part, these vessels were found to form a conjunction with a small collection of varicosities existing around the saphenous opening. The varicosities were ligated at the deep inguinal ring and the superficial part of the varicosities was excised. Histological examination confirmed the diagnosis of the thrombosed varicose veins (Fig. 3). There were no problems on follow-up consultation three months later.

DISCUSSION

A groin hernia is a common condition that is frequently encountered in surgical clinics. The diagnosis is not essentially difficult to make after investigating the patient's history and performing a careful physical examination. However, there are several conditions that present similar symptoms and findings¹⁻³¹.
and which should be differentially diagnosed preoperatively. A round ligament varicosity is an obstetric morbidity with an acute onset showing a tender and painful mass in the groin. The morbidity is reported to become clinically evident in late pregnancy and early in the puerperium, the period when hypercoagulability associated with pregnancy reaches a peak. A round ligament varicosity shows a clinical picture mimicking an incarcerated inguinal hernia. Additionally, the morbidity is not necessarily associated with varicosities of the legs or labia. Therefore, it is occasionally misdiagnosed as irreducible inguinal hernia, which requires emergent surgery. Four cases of round ligament varicosities associated with pregnancy similar to ours have been reported, and are summarized in Table 1. In three of the five cases (including ours), surgery was urgently conducted for an irreducible hernia, suggesting that it is difficult to make a precise diagnosis. On the other hand, two cases that were diagnosed as round ligament varicosities were successfully managed with conservative care, which indicates that surgery can be avoided if the disease is preoperatively diagnosed. Cheng et al. have reported a case in which ultrasonic examination was helpful for a diagnosing round ligament varicosity and shown the outline of the sonographic features comprising blood flow signals around the thickened round ligament. Although conventional ultrasound scanning was conducted in the present case, there were no characteristic findings the facilitated a differential diagnosis. Color Doppler ultrasonography should have been recommended. In our case, the decision to select surgery was sufficiently justified because the varicosities were
very painful and because we could not exclude the possibility of bowel incarceration. However, since surgery during pregnancy and puerperium carries the risk of fetal and maternal morbidity, unnecessary operations must be avoided. In conclusion, the present case should alert surgeons to consider a round ligament varicosity in the differential diagnosis of an irreducible inguinal hernia.

REFERENCES