Round Ligament Varicosities in Pregnancy

Gebelerde Round Ligaman Varikositesi

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ABSTRACT

Round ligament varicosities (RLV) in pregnancy are rare. On physical examination, it is difficult to distinguish RLV from inguinal hernia. Its diagnosis can be established using sonography. We present a case of RLV in which a 31-year-old woman presented at 28 weeks of gestation with a palpable left inguinal swelling. She was diagnosed using Doppler sonography, and conservative management was suggested. *(JAREM 2016; 6: 115-6)*

Keywords: Round ligament varicosities, pregnancy, inguinal hernia, sonographic examination

ÖZ

Round ligaman varikositeleri gebelikte nadir olarak izlenir. Fizik muayenede inguinal herniden ayırt edilmesi zordur. Tanı sonografik inceleme ile mümkündür. Otuz bir yaşında ve gebeliğinin 28. haftasında sol inguinal şişlik ile gelen vakamızı sunuyoruz. Tanı, renkli Doppler ultrason ile konuldu ve konservatif tedavi önerildi. *(JAREM 2016; 6: 115-6)*

Anahtar Kelimeler: Round ligament varikositeleri, gebelik, inguinal herni, sonografik inceleme

INTRODUCTION

Round ligament varicosities (RLV) in pregnancy are rare. They have findings similar to those of inguinal hernia on physical examination; therefore, it is difficult to distinguish RLV from inguinal hernia. The diagnosis can be established using sonography, and conservative management is justified.

CASE PRESENTATION

We present a case of a 31-year-old patient in her 28th week of gestation with a tender, palpable left inguinal mass. The symptoms including swelling and discomfort were noticed at 26 weeks of gestation and were provoked by the standing position. She experienced similar but less prominent symptoms in her first pregnancy, and clinical examination at that time was unremarkable. She visited her obstetrician who referred her to a general surgeon. After clinical examination, she was referred to our radiology department, and inguinal hernia was suspected. Our physical examination findings included painful, reducible soft mass in her left inguinal region. Gray-scale sonography revealed multiple, anechoic, tubular channels (Figure 1) extending from the left inguinal canal (Figure 2) to the pelvic abdominal space (Figure 3). Color Doppler sonography revealed abundant venous flow, which became more prominent during the Valsalva maneuver. No thrombus was identified in the lesion. On sonographic examination there was no bowel, lymphadenopathy or other mass. In addition, she had lower extremity varices with dilated VSM showing long duration (4 s) reflux flow during Valsalva maneuver (Figure 4). Based on sonographic findings, we diagnosed round ligament varicosities. The patient was examined again at 32 weeks of gestation and showed similar findings. We suggested conservative management including obstetric practice and sonographic examination during and after pregnancy until the complete resolution of the lesion. For this study, verbal informed consent was obtained from the patient.

DISCUSSION

The round ligament which contains veins, arteries, lymphatics, and nerves extend from the parauterine space passing through inguinal canal to the labium majora. RLV are dilated veins located within the round ligament. It is more common during pregnancy because venous return increases and venous tonus reduces (1). The incidence of RLV was reported in only 5 of 3,816 pregnancies by McKenna et al. (2).

The clinical manifestations of RLV often include inguinal swelling and pain, which can be provoked by increased intra-abdominal pressure.

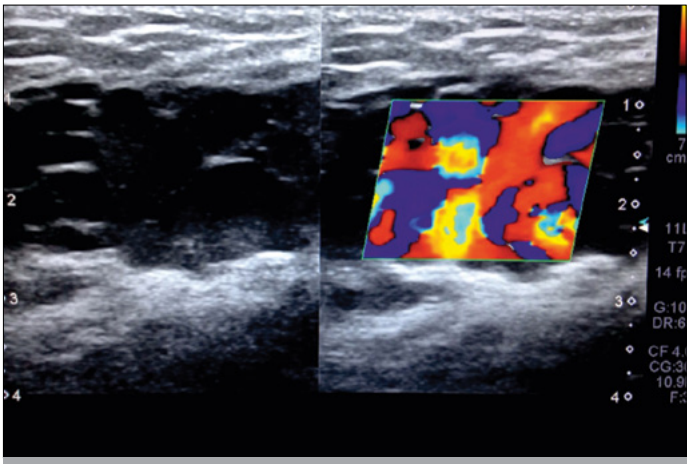


Figure 1. "Bag of worm" appearance of the varicose veins and the glow on B-mod and color Doppler sonography

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Among the differential diagnoses of RLV the most common one is inguinal hernia because of their similar clinical appearance; therefore, distinguishing RLV from inguinal hernia in clinical settings is difficult.

The diagnosis of RLV can be established using sonography. The typical findings of RLV on gray-scale sonography are the "bag of worm" appearance of the subcutaneous tissue which is formed by the multiple dilated veins and its extension through the inguinal canal. On color Doppler imaging, the existence of venous flow and its augmentation by Valsalva maneuver confirm the diagnosis (1, 2).

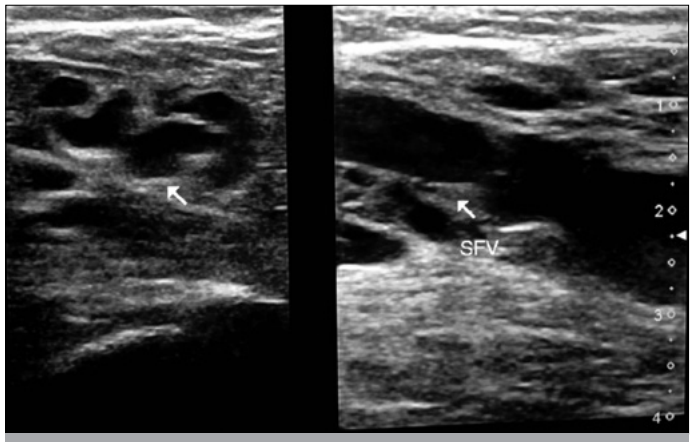


Figure 2. The extension of the varicose veins through the left inguinal canal

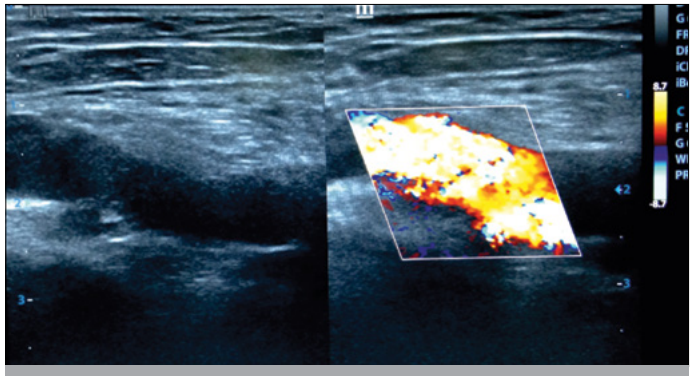


Figure 3. Parauterine varicose veins and reflux flow during Valsalva maneuver

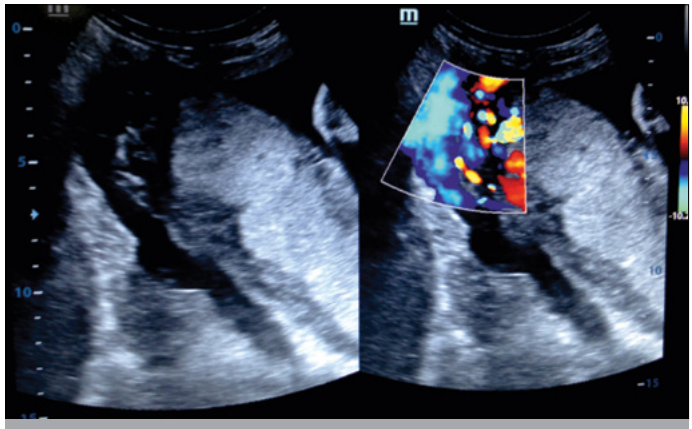


Figure 4. VSM from superficial femoral veins, and reflux flow during Valsalva maneuver (VSM: Valsalva maneuver)

For the diagnosis of RLV, sonographic examination is necessary and sufficient. After the correct diagnosis of RLV, conservative management, including repeated sonographic examination and obstetric practice, is justified with the expectation that they will spontaneously disappear during the postpartum period (2).

However, during pregnancy, close monitoring is necessary because possible complications, such as rupture of the varices and acute thromboses, have been reported which cause intense and painful swelling and require emergency surgical exploration. When pain is the predominant symptom, these two complications should be excluded (3, 4).

CONCLUSION

We should remember RLV as a part of the differential diagnoses and perform Doppler sonography when a pregnant patient presents with an inguinal swelling. To avoid unnecessary surgery, varicosities and inguinal hernias should be distinguished during pregnancy.

Informed Consent: Verbal informed consent was obtained from patient who participated in this case.

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