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CASE REPORT

Rectus Muscle Hematoma as a Rare Differential Diagnosis of Acute Abdomen; a Case Report

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Abstract: Rectus sheath hematoma is a rare but well-known problem. Exercise, pregnancy, subcutaneous injection of insulin, abdominal surgery and severe coughs can be predisposing factors of hemorrhage in the mentioned muscle sheath. Here, we will discuss a case of rectus sheath hematoma in a 28 year-old female patient who presented to emergency department with complaint of abdominal pain and improved in 1 week with palliative care.

Keywords: Rectus abdominis; hemorrhage; abdomen, acute; emergency service, hospital; ultrasonography

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1. Introduction

Rectus sheath hematoma is a rare but well-known problem (1, 2). Exercise, pregnancy, subcutaneous injection of insulin, abdominal surgery and severe coughs can be predisposing factors of hemorrhage in the mentioned muscle sheath (1-6). Acute abdominal pain and mass are among the most important clinical manifestations of rectus sheath hematoma that can be mistaken for cases such as appendicitis, abscesses and abdominal wall tumors, hernias, and diverticular diseases as well as gynecologic and urinary tract diseases in differential diagnosis (7, 8). Here, we will discuss a case of rectus sheath hematoma in a 28 year-old female patient who presented to emergency department with complaint of abdominal pain and improved in 1 week with palliative care.

2. Case report

The patient is a 28 year-old female who presented to the emergency department with acute abdominal pain since 2 hours before. Abdominal pain in the patient was under the umbilicus and on both sides of the central line of the abdomen or linea alba, localized, and without diffusion to a special point. The pain was not related to eating but would worsen with walking and change in position. As the patient said, the pain had manifested suddenly following the second session of working out while she was doing sit-ups and she could not continue exercising. The patient did not mention complaints of nausea or vomiting, urinary symptoms such as burning or frequent urination, vaginal discharge or history of direct trauma to the abdomen. Her menstrual cycle was regular and she reported the time of her last menstruation as 20 days before. She had a history of consuming Accutane drug until 2 months before due to acne. She did not mention any history of bleeding disorders in herself or her family.

Vital signs of the patient on admission to the emergency department were: blood pressure, 100/80 mmHg, heart rate 90 per minute, respiratory rate 10 per minute, oxygen saturation 98% at room temperature and sublingual temperature of 37 °C.

Abdominal examination indicated localized bilateral tenderness under the umbilicus, without rebound and no mass was sensed. There was no sign of bruise, scar, or skin lesions on the abdomen. Examination of other organs and gynecologic examination had no pathologic finding. Coagulation, blood and urine tests were normal and serum ÎšHCG was negative. In the ultrasonography performed on the patient, 2 heterogenic hypo-echo regions were seen. One was 9×22×23 millimeters in size (approximate volume of 2.5 cc) in the right rectus muscle and the other with approximate dimensions of 4×25×45 (approximate volume of 3 cc) in the left rectus muscle 13 mm from the skin surface with the approximate dis-

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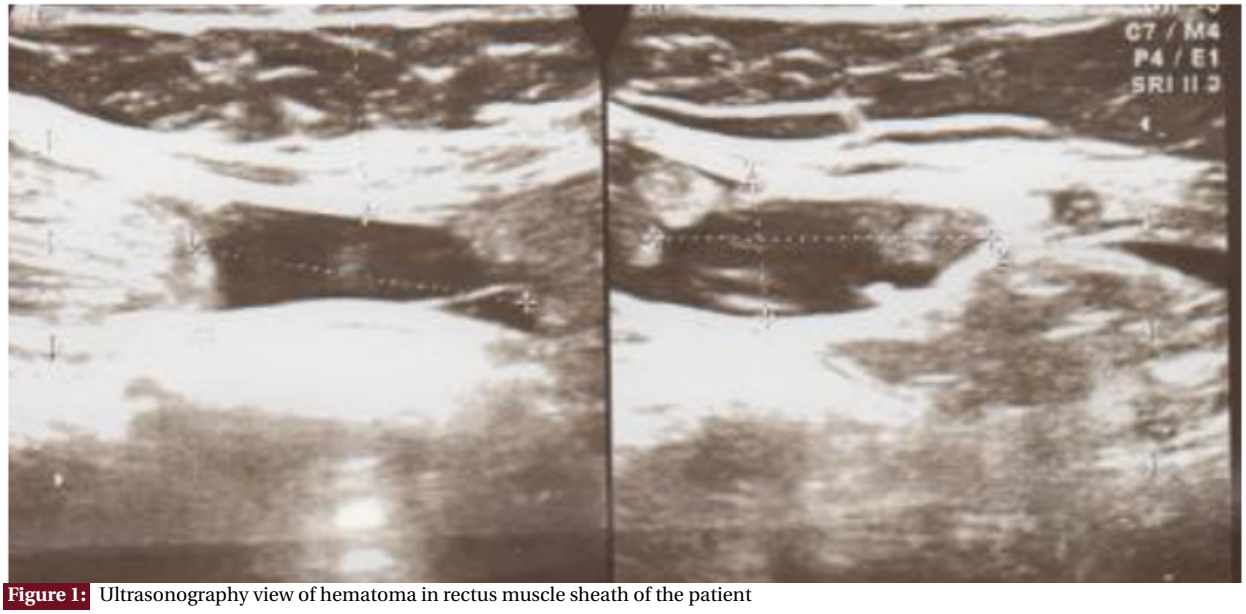

Figure 1: Ultrasonography view of hematoma in rectus muscle sheath of the patient

tance of 10 cm under the umbilicus, which suggested rectus hematoma (figure 1).

No other ultrasonography abnormality was detected in the appendix, ovaries and vagina. Finally, the patient was discharged from the emergency department with diagnosis of rectus muscle hematoma and with prescription of oral analgesics and order to rest. 1-week follow up of the patient revealed gradual pain relief during the initial 48 hours and complete relief within a week.

3. Discussion

Rectus muscle sheath hematoma occurs due to rupture of upper and lower epigastric arteries and their branches or rupture of the rectus muscles themselves (9). Sudden muscle strain and change in position without direct trauma are usually predisposing factors of bleeding in muscle sheath (10). In most cases, rectus muscle hematomas are self-limiting and are conservatively absorbed via rest and use of analgesics (11). When a patient is hemodynamically unstable, the size of hematoma is increasing or rupture has happened in the peritoneum, there is a need to consult the surgery service (1, 12, 13). Anyway, the important point is to have this differential diagnosis in mind along with other pathologies of acute abdomen and especially hernia, patients affected with which usually present with similar history. Abdominal ultrasonography as an available bedside tool is also very helpful in this case under the condition that the operator also looks for surface pathologies having this differential diagnosis in mind (14). Like other diseases, accurate history taking along with clinical suspicion will lead to finding the key to the mystery more rapidly.

4. Appendix

4.1. Acknowledgements

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4.2. Authors contribution

All the authors of this article met the criteria of authorship based on the recommendations of the international committee of medical journal editors.

4.3. Conflict of interest

Hereby, the authors declare that there is no conflict of interest regarding the present study.

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