

A medical approach to the treatment of atraumatic spontaneous spleen ruptures

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Dear editor,

Spleen rupture is a common occurrence after blunt abdominal trauma. Splenic injuries which is the most of solid organs are injured in blunt abdominal trauma (1). This knowledge has become a phenomenon and has entered into medical written sources (2, 3). However, atraumatic spontaneous spleen rupture (ASSR), is a rare diagnosed from emergency unit, so it is a serious and urgent condition. if not managed well this condition can lead to death (4, 5). The first ASSR was reported by Rokitansky in 1861 and Atkinson in 1874 (4-8). Orloff and Peskin defined as ASSR, the patient has any systemic disease, any trauma history, any splenic adhesions. It also has a normal spleen parenchyma, vascular structure and capsule (7). ASSR may interfere with the pathology of much abdominal pain. Detection can take time and can lead to undesirable results. The absence of a trauma story makes it difficult to diagnose. There is not much information about the way of ASSR occurs, characteristics, and the frequency of its occurrence. The causes of ASSR can be infectious, neoplastic, haematological and iatrogenic (6, 8). ASSR can be easily diagnosed by computerized tomography (CT) or laparotomy in hemodynamically unstable patients.

A fifty-five year-old male patient was admitted to emergency department due to abdominal pain in severe left lumbar area. Pain was started suddenly. There was no trauma story, no malignant tumor or infectious disease. There was no drug history which used constantly. The general condition is good at the physical examination. There was minimal sensitivity and voluntary defense positive in the upper left abdomen. He had no rebound tenderness. Blood Pressure: 110/80 mmHg Pulse rate: 76 / min fever 36,8° C, respiratory rate 22 / min. Laboratory values; Glucose (Glu): 142 mg / dL Hemoglobine (Hg):

11.2 g / dL White Blood Cell (WBC): $13,81 \cdot 10^3 / \mu\text{L}$ Platelet (Plt): $170,000 \cdot 10^3 / \mu\text{L}$ Hemotocrit (Htc): 33,5%, International Normalised Ratio (INR): 1,21. There was no feature in standing direct abdominal graphy (Figure 1).



Figure 1. Direct X- ray graphy

The abdominal ultrasound (USG) "Hypoechoic heterogeneous hematoma with a thickness of 2 cm in the anterior part of the spleen. The appearance was evaluated for laceration. The perihepatic, perisplenic region and within the bone pelvis, and in the lower quadrant of the abdomen, dense content of free fluid (hematoma) was observed nearly 8 cm." Abdominal computed tomography was performed (Figure 2).

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There is widespread heterogeneity in the spleen parenchyma, and there are laceration lines 5 cm in length extending to the capsule level. Perihepatic, perisplenic and pelvic hematomas were reported.



Figure 2. Abdominal computed tomography photos

The patient was transferred from emergency unit to general surgery service. Immobilization was recommended to the patient. Urinary catheter was inserted. Oral regimen was stopped. Proper hydration and broad-spectrum antibiotics were started. Three units of erythrocyte suspension were prepared for emergency operation. Four-hour follow-up hemogram test was done. Strict haemodynamic follow-up was performed. Decided to be followed up medically, because the vital parameters were stable and abdominal examination completely normal. Hg value decreased 11.2 g / dL to 9.6 g / dL. Patient began to be mobilized in the fourth day. Oral regime was opened. He had a gas and gaita discharge. Control abdomen USG was performed and same as first USG finding and stabilized findings. Patient was discharged on the 7th day with recommendations. Patient was called for control 15 days later. Laboratory values; Hg: 11.5 g / dL WBC: $11,81 \times 10^3$ / uL Plt: $370,000 \times 10^3$ / uL Htc: 34,5%, INR: 1,30. Control USG was reported as "The spleen has a 1.5 cm wide laceration area about 2.5 cm in the lower part and a 11×4 cm organized hematoma

is seen in the anterior part of the spleen associated with laceration." There was no pathology in the physical examination.

ASSR is a rare event. This is an act that must be urgently intervened. Delay in diagnosis and intervention can cause death. Clinical experience is important for abdominal pain. Every abdominal pain should be suspected and ASSR be kept in mind also patient has any trauma history.

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