

NONOPERATIVE TREATMENT OF COMPLEX BLUNT LIVER TRAUMA (GIANT SUBCAPSULAR HEMATOMA): CASE REPORT AND LITERATURE REVIEW

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Abstract: Blunt liver trauma is a recurrent pathology, with possible diverse anatomical involvements, which represents a challenge in therapeutic management. In this paper, the case of a 40-year-old female victim of blunt abdominal trauma with extensive liver injury is presented, and potential non-operative treatment is discussed despite its severity and mortality rates.

INTRODUCTION

Blunt liver trauma is a recurrent pathology, with possible diverse anatomical involvements, which represents a challenge in therapeutic management. When it comes to a giant hepatic subcapsular hematoma, there is controversy about conservative treatment and clinical follow-up due to the possibility of its rupture.

CASE REPORT

A.L.C., female, 40 years old, victim of blunt abdominal trauma by surfboard arrives at Hospital Municipal Lourenço Jorge by own means, with report of intense abdominal pain, nausea and vomiting, hemodynamically stable. On physical examination, the patient was pale 2+/4+, with a somewhat distended abdomen, painful on palpation, predominantly in the right hypochondrium, with no signs of peritonitis. Analgesia was administered and the patient was taken to a TC scan, where a large subcapsular hepatic and intra-parenchymal hematoma measuring 15.13x5.39 cm and about 700 cm³ was found. During hospitalization, the patient received two packed red blood cells on her second day in the unit for maintenance of hematometric levels. Due to the complexity of the lesion, a hepatic arteriography was performed in the operating room, with negative results. With no involvement of other organs, non-operative treatment was prioritized. Contrast TC scans of the abdomen and serial blood

counts were performed for follow-up of the hepatic contusion. She was discharged after 14 days of hospitalization with specific medical guidelines, regular outpatient follow-up and maintenance of imaging exams to confirm the regression of the hematoma. There was no intercurrentence since the hospital discharge, and the patient continues in this follow-up format until the present moment.

DISCUSSION

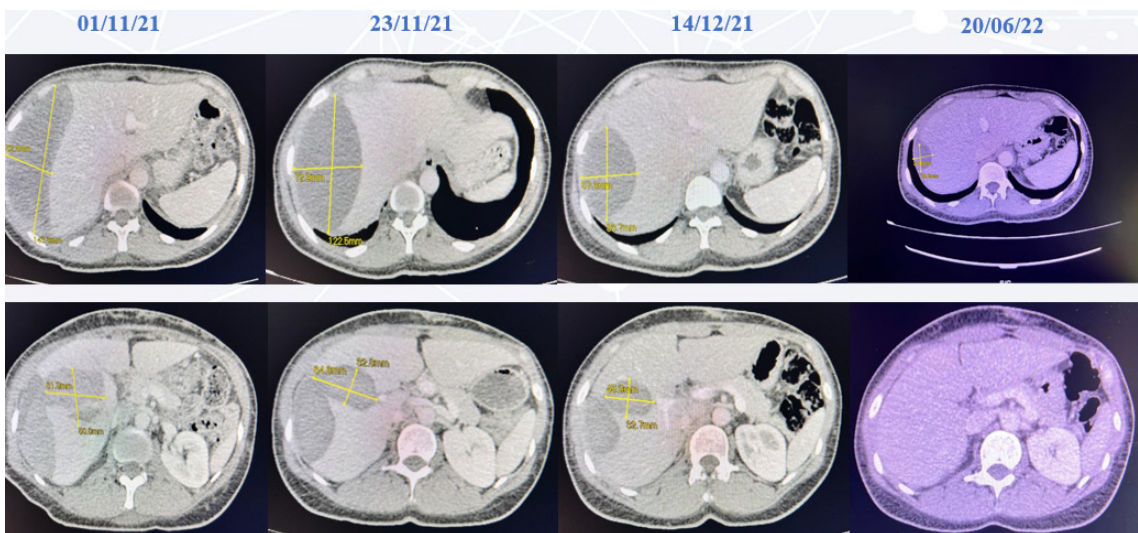
The liver is a highly vascularized organ, located in the upper right quadrant of the abdomen, and due to its size and anatomical position, it is frequently affected in abdominal trauma. Liver trauma corresponds to approximately 5% of admissions to Emergency Rooms. Its incidence has increased in recent decades as a result of an increase in the absolute number of cases and the improvement of diagnostic imaging methods (1). The treatment of liver trauma can be non-operative or surgical, depending on hemodynamic stability, associated injuries and degree of liver injury, according to the classification of the American Association of Trauma Surgery (AAST) (2). In recent years, non-operative treatment has gained space in the management of liver trauma due to greater accessibility to imaging tests (3,4). The TNO of any solid viscera needs to be performed in a center with availability of imaging tests, an intensive care unit (UTI) and a surgical team available (5). In the United States, with the advent of diagnostic imaging methods, such as computed tomography (TC), TNO has become the treatment of choice in recent decades for patients with blunt liver trauma with hemodynamic stability and no signs of peritonitis. (6). like computed tomography (TC), TNO has become the treatment of choice in recent decades for patients with blunt liver trauma who are hemodynamically stable and without signs of peritonitis. (6).

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Upon patient admission, initial resuscitation, diagnostic evaluation and management are performed according to the ATLS (7). Hemodynamically unstable trauma patients must be transferred immediately to the operating room for evaluation and treatment. If there is clinical stability, complementary laboratory and imaging tests can be carried out, with contrast-enhanced abdominal Computed Tomography (TC) usually being the most chosen method for definitive confirmation of the lesion, in addition to defining its degree. The accumulation of intravenous contrast in or around the liver implies continuous bleeding and the need for intervention (5,8). Nonoperative management is the treatment of choice for hemodynamically stable patients with liver injury, regardless of grade, and consists of observation and supportive care with the adjunctive use of arteriography and hepatic embolization.

This, in turn, requires the proper selection of patients and the availability of resources and a multidisciplinary team. Hemodynamically stable patients, but who demonstrate liver extravasation on abdominal TC, have higher rates of failure with non-surgical treatment, and must undergo arteriography and possible hepatic embolization followed by continuous observation and serial determination of hemoglobin (5).

Liver injury mortality rates vary according to the degree of injury and have improved over time with the introduction of non-operative management strategies and the use of perihepatic packing. As mortality is uncommon with grade I and II injuries, the greatest reduction in operative mortality occurred for higher grade liver injuries (grades III, IV, V). Many of these high-grade traumas can be successfully treated non-surgically, with low overall mortality rates ranging from 0 to 8%. These are highest for those patients with high-grade injuries that require surgical treatment immediately or as a result of non-surgical treatment failure (30 to 68%) (5).



CONCLUSION

The management of liver injury has evolved exponentially in recent decades. Non-operative therapy is the treatment of choice for selected patients, regardless of the degree of liver damage, as long as there is rigid clinical, laboratory and imaging monitoring, in addition to outpatient follow-

up after hospital discharge. Hemodynamically unstable patients require adjuvant methods to compensate for the situation, and procedures such as arteriography and embolization may also be used before the traditional surgical approach.

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