

Case Report

CASE OF HEPATIC HEMATOMA BY ULTRASOUND

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Abstract

Hematoma is generally defined as a collection of blood outside of blood vessels. Most commonly, hematomas are caused by an injury to the wall of a blood vessel, prompting blood to seep out of the blood vessel into the surrounding tissues. A 28-year-old man was admitted to the hospital, he came for ultrasound follow up after he exposed to trauma. Abdominal ultrasound image shows Intra-hepatic cystic mass contains low level echoes with posterior enhancement = liquefied hematoma.

Keywords: Hematoma, US

Introduction

The liver is the largest solid abdominal organ with a relatively fixed position, which makes it prone to injury. The liver is the second most commonly injured organ in abdominal trauma, but damage to the liver is the most common cause of death after abdominal injury. The most common cause of liver injury is blunt abdominal trauma, which is secondary to motor vehicle accidents in most instances.

In the past, most of these injuries were treated surgically. However, surgical literature confirms that as many as 86% of liver injuries have stopped bleeding by the time surgical exploration is performed, and

67% of operations performed for blunt abdominal trauma are nontherapeutic.[1, 2]

Case Report

A 28-year-old man was admitted to the hospital, he came for ultrasound follow up after he exposed to trauma. The patient reported road traffic accident 45 days ago. Abdominal ultrasound image shows Intra-hepatic cystic mass contains low level echoes with posterior enhancement = liquefied hematoma. Intra-hepatic hematoma following road traffic accident 45 days ago, the hematoma liquefied and contains low level echoes with posterior enhancement (FIG 1).

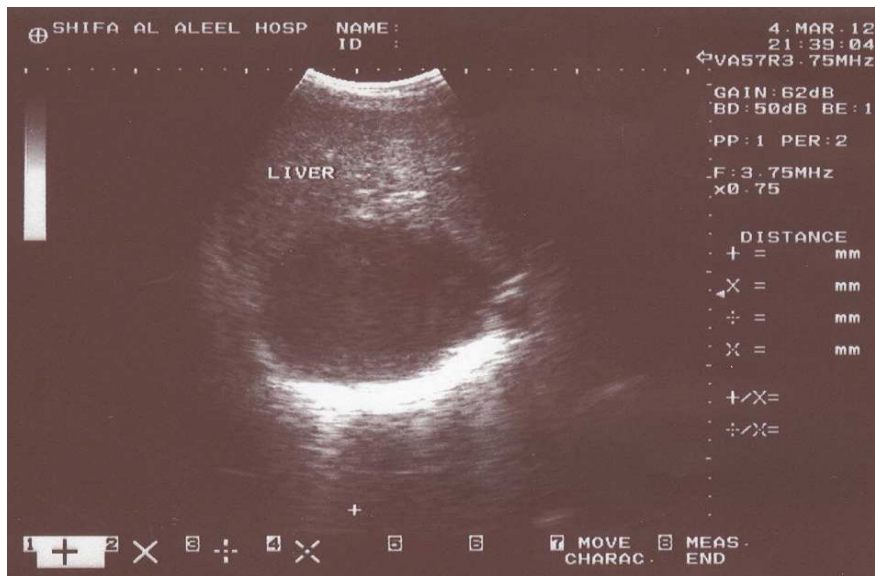


Fig (1) TAS showing hepatic hematoma

Discussion

The liver is the third most common organ injured in the abdomen after the spleen and kidney. Richards et al has observed that sonography may also reveal blunt hepatic injury with three distinct patterns (3). The most common US pattern observed in 10 patients was a discrete hyperechoic area. A diffuse hyperechoic pattern was seen in six cases, and a discrete hypoechoic pattern in two cases. An echogenic clot often surrounds the liver, and hypoechoic fluid may be in other portions of the abdomen. Hepatic lacerations appear more hypoechoic or cystic when they are scanned days after the initial injury (4).

Ultrasound guided liver biopsy is a relatively safe diagnostic procedure; ultrasound guidance increases the diagnostic yield of the biopsy and reduces complication rates. Significant hemorrhage is rare, but is the most common cause of mortality. Bleeding usually occurs due to tear of a distended portal or hepatic vein. Asymptomatic intra-hepatic hematomas may occur following a liver biopsy and hence ultrasonic surveillance in high risk patients is advocated. According to a study by

Gonciarz, et al if clinically relevant intra-hepatic hematomas were not detected 4 hours post biopsy, then no further follow up was needed. Most researchers advocate a 24 hour follow up. However, delayed hemorrhage from the biopsy site may go unsuspected. This is a seldom appreciated fact and must be remembered (5).

The intra-hepatic hematoma in the acute stage is seen as a well-defined, hypoechoic mass with low level echoes in the area of the puncture site. The mass shows good sound transmission. Later as the hematoma ages it becomes more heterogeneous and hyperechoic (6, 7).

Most of the intra-hepatic hematomas resolve spontaneously without the need for any intervention. However, periodic ultrasonic monitoring recommended (8, 9, 10, 11).

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