

Ultrasound in the diagnosis of splenic abscess

Case Report

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Summary

Two cases of splenic abscess diagnosed by grey scale ultrasound are described.

Key words – Splenic abscess, enlarged spleen and ultrasound examination.

Splenic abscess is rather a rare condition. In 1976 only 10 cases from 100,000 admissions were reported from Cleveland Metropolitan General Hospital over a ten year period^{1,2} and Dubbins reported another.²

Routine plain x-ray abdomen demonstrates only indirect signs of the condition such as an enlarged spleen, extra alimentary gas/fluid collection, elevation of left hemidiaphragm and displacement of stomach medially³. However, definitive diagnosis is dependent on the use of technitium 99 or sulphur colloid liver/spleen scanning^{4,5} or arteriography.^{6,7}

Two cases of splenic abscess diagnosed by grey scale ultrasound are described. It is found that ultrasound is the most convenient way to diagnose this condition.

Case No. 1

A 20-year old Malay boy presented with abdominal and left lumbar pain together with fever of 5 days duration. Diagnosis of renal colic due to urinary tract infection was made. Antispasmodics together with intravenous ampicillin 500 mgm 6 hourly and intramuscular gentamycin 8 hourly was given. During the course of treatment the patient continued to have fever and left lumbar pain. His temperature reached a maximum of 39.7°C. After one week of admission, splenomegaly was noted.

Ultrasound examination was performed after one week using a linear Toshiba Sonolayer-SAL 20A Scanner. Longitudinal, intercostal and transverse scans were performed demonstrating an irregular, hypoechoic lesion within the enlarged spleen. The margins of the lesions were ill-defined. The appearances were consistent with splenic abscess. The left kidney was normal. The fever settled down with third week, but the tenderness in the left hypochondrium persisted.

The patient was discharged. He was readmitted for barium enema which showed an extrinsic compression of the splenic flexure of the colon. The fever had recurred with pain in the left hypochondrium. Laparotomy was done which showed an abscess in the diaphragmatic surface of the spleen with pus around the splenic flexure of the colon. After the pus was drained, the patient made a full recovery.

Case No. 2

A 48-year old Indian male diabetic presented with anorexia of 6 days and fever for two weeks. He was jaundiced. An initial diagnosis of cirrhosis of liver with ascending cholangitis was made. He was treated with oral ampicillin and intravenous cloxacillin. However, the fever continued and the general condition did not improve.

Ultrasound examination revealed an enlarged spleen with an irregular hypoechoic lesion of 3.9 cm. in diameter within it. Posterior to this lesion an acoustic enhancement was demonstrated. Blood culture revealed a growth of *Staphylococcus aureus*. After 20 days of non-response to previous treatment, the patient was put on tab. erythromycin 500 mgm 6 hourly and flagyl 800 mgm tid. On 5 days of renewed treatment, he improved remarkably and was discharged.

Discussion

Solitary splenic abscess is very rare when compared to the incidence of liver abscess in the General Hospital, Ipoh. From August, 1984 to June, 1987 only 2 cases of splenic abscess were diagnosed when compared to 47 of liver abscess in the above hospital. It is also a difficult condition to diagnose clinically. Splenomegaly is a non-specific sign. In septicaemia, patients can develop splenomegaly without splenic abscess although 75% of splenic abscesses are said to be secondary to haematogenous spread (as described in our second case).

In the 2 cases reported, the clinical features are inconsistent. The first patient presented with fever and pain in the left lumbar region mimicking left renal pathology. The second case was initially diagnosed as cirrhosis with ascending cholangitis. In both instances, it was only after the ultrasound scan that the diagnosis of splenic abscess was established. Hence, it is suggested that when a patient shows clinical signs of infection with enlarged and tender spleen or tenderness in the left hypochondrium, a simple and rapid ultrasound scan should be done to confirm the diagnosis of splenic abscess.

References

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