interesting alternative for the first-line empirical treatment of bacterial AGE in cases in which there is a strong suspicion of a NTS aetiology and microbiological tests cannot be performed.

References

<table>
<thead>
<tr>
<th>Case</th>
<th>Age (years)</th>
<th>Clinical manifestations</th>
<th>Examination</th>
<th>CBC Liver function</th>
<th>AFP</th>
<th>Ultrasound</th>
<th>Abdominal MRI</th>
<th>Biopsy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>13</td>
<td>Abdominal pain</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Hyperechoic lesion in right liver lobe measuring 8 cm × 6 cm</td>
<td>Focal lesion in eighth segment, subcapsular, measuring 9 cm × 9.6 cm × 8.6 cm in diameter, with a central scar, the lesion takes up contrast in the arterial phase and becomes isointense with the liver parenchyma in the portal venous phase; the central scar is hyperintense in T2 and hypointense in T1, delayed enhancement after administration of contrast</td>
<td>FNH</td>
</tr>
<tr>
<td>2</td>
<td>5</td>
<td>Abdominal pain</td>
<td>Hard mass in left hypochondrium, moderate pain on palpation</td>
<td>N</td>
<td>N</td>
<td>Solid lesion with polylobulated margins, slightly hyperechoic in right lobe of liver, with no central scar</td>
<td>Single lobulated mass in sixth liver segment with intraslesional vessels, non-infiltrating, measuring 7 cm × 4 cm × 7 cm. With contrast: rapid enhancement in the arterial phase with washout in the portal venous and delayed phases</td>
<td>FNH (Fig. 1)</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>Abdominal pain. Suspected appendicitis</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Mass in subcapsular region of left lobe of liver, isoechoic, with peripheral and intraslesional vascularisation. Elongated and tortuous appendix with hyperechoic adjacent mesoappendix that appeared normal in the next ultrasound checkup</td>
<td>Lesion in second segment of left lobe of liver, lobulated and with a well defined contour, measuring 2.8 cm × 4.8 cm × 3.6 cm, nearly isoechoic with liver parenchyma, isointense with the liver parenchyma after administration of contrast</td>
<td>FNH</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
<td>Intermittent fever</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Solid mass in segment Vb of the liver measuring 2.8 cm × 3.4 cm × 3.5 cm, homogeneous and nearly isoechoic relative to the liver parenchyma, with tumour vascularisation with a particularly prominent central vessel and a normal arterial pattern</td>
<td>Not performed</td>
<td>FNH</td>
</tr>
</tbody>
</table>

**Table 1** Description of the four clinical cases.

AFP, alpha-foetoprotein; FNH, focal nodular hyperplasia; MRI, magnetic resonance imaging; N, normal.
as telangiectatic FNH, in which there is no nodular architecture and the lesion is not structured around a vascular malformation; it is usually larger in size and associated with more frequent complications, producing symptoms and on occasion even abnormal laboratory findings.

In most cases, FNH remains stable over time, although the literature has reported cases in which the tumour decreased in size or even spontaneously regressed. There have been no reports of malignisation. Molecular biology studies have been conducted that confirmed that FNH is not a preneoplastic disease, and to date, no study has found somatic mutations in the β-catenin gene or other genes involved in hepatocellular adenoma, in which malignant transformation may occur.5

The rarity of cases of FNH compared to other types of liver tumours, especially malignant ones, limits the power of the evidence provided by imaging tests, so a biopsy is needed in almost every case to make a definitive diagnosis.1

Although there is no conclusive evidence to prove the advantages of observation over resection, the former approach has been adopted in the management of adults with good results. Since FNH is a benign lesion, it is better to avoid surgery whenever possible, making decisions on a case-by-case basis. The current indications for surgery are clear: presence of symptoms, increasing size of mass, or inability to rule out malignancy with certainty. Some authors propose selective embolisation as an alternative approach.3

A conservative approach with clinical and radiological followup was chosen for all cases in our series following histological diagnosis. At 70, 37, 33 and 19 months of followup, respectively, patients remained asymptomatic and the lesions stable in imaging tests.

Figure 1  Histology of focal nodular hyperplasia of the liver. Liver biopsy corresponding to a case of FNH: (A) normal cellularity without atypia. (B) Absence of portal triads (characteristic of FNH). Presence of bile canaliculi (inconsistent with hepatic adenoma). (C) Presence of fibrosis (Masson’s trichrome stain).

References

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