(*Refer to page 36*)

Answer: Mirizzi Syndrome

The cholagiogram showed multiple large gallstones with one stone in the cystic duct impinging on the distal common hepatic duct (CHD), causing obstruction with resultant proximal CHD and intra-hepatic duct obstruction, Mirizzi syndrome (MS).

MS is a rare complication (frequency about one per cent) of gallstone disease, first described by Pablo Luis Mirizzi, a surgeon from Argentina. There are four components to make up MS: *a*) anatomy placing the cystic duct parallel to the common hepatic duct, *b*) impaction of a stone in the cystic duct or gallbladder neck, *c*) obstruction of the common hepatic duct from the stone itself, or from the resultant inflammatory response, and *d*) intermittent or constant jaundice occasionally causing cholangitis, and with longstanding obstruction. [1]

Patients with this syndrome are typically aged between 53 and 70 years. However, it can occur at any age. There is a female preponderance and the most common clinical presentation is obstructive jaundice, abdominal pain over the right upper quadrant, and fever in patients with known or suspected gallstone disease.

Preoperative diagnosis is very important to avoid intraoperative bile duct injury. Ultrasonography is usually the initial investigation in obstructive jaundice. Magnetic resonance cholangiopancreatography (MRCP) is a useful non-invasive investigation, and is considered the investigation of choice. It also allows assessment of the extent of the inflammatory process surrounding the gallbladder, and has the advantage of avoiding the complications associated with Endoscopic retrograde cholangiopancreatography (ERCP). However, it is only a diagnostic investigation. ERCP can demonstrate the level of obstruction, and can confirm the presence of a fistula. The advantage of ERCP is that it allows intervention, typically stenting to be carried out at the same time. [2]

Numerous attempts have been made to classify and standardise the surgical treatment of MS. In 2008. Csendes *et al*. classified MS into five (I to V) grades. [3] Beltrán recently proposed a simpler classification with standardised surgical treatment options. [4] Every effort should be made to establish a preoperative diagnosis, and if encountered during surgery every effort should be made to identify the type of MS and render the most adequate treatment for each particular case.

Note: Please refer to the Supplementary Text for Classification of Mirizzi Syndrome.

REFERENCES

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4: Beltrán MA. Mirizzi syndrome: History current knowledge and proposal of a simplified classification. World J Gastroenterol 2012; 18:4639-50.