# Feasibility and Outcomes of Laparoscopic Management of Mirizzi Syndrome: A Single Centre Experience

Mootaz Elhusseini<sup>1,2,3</sup>, Lokesh Saraswat<sup>1</sup>, Mohamed Bekheit<sup>1,2</sup>, Mudassar Ghazanfar<sup>1,2</sup>, Mohammad Habib<sup>1,2</sup>

- 1. Aberdeen Royal Infirmary Hospital, Aberdeen, UK
- 2. University of Aberdeen, Aberdeen, UK
- 3. Ain Shams University, Cairo, Egypt

#### Aims:

Pre-operative diagnosis of Mirizzi Syndrome (MS) is challenging, as mismanagement of undiagnosed cases is associated with undesirable outcomes. Laparoscopic management is becoming popular for type 1 MS but not for type 2. In this series, we describe the outcomes of laparoscopic management of thoroughly investigated cases of MS.

#### Methods:

Retrospective analysis of prospectively maintained database from December 2015 to March 2020 was performed. A dedicated multidisciplinary team of surgeons, radiologists and endoscopists has agreed on peri-operative diagnosis. Laparoscopy was considered the standard initial surgical approach in all cases. Treatment success, conversion to open and surgical outcomes were reviewed.

### Results:

31 patients (24 type 1, 7 type 2) with median age 64 years, were included. MRCP alone was diagnostic in 51.6%, ERCP in 22.6% whereas Ultrasound or CT failed to be single diagnostic modality. 2 patients needed conversion. 35% experienced post-operative complications, of which 9.7% (n=3) bile leak needed re-operation.

## Conclusion:

High index of clinical suspicion aided by appropriate imaging, most importantly MRCP, helps achieving accurate pre-operative diagnosis and in turn reduces peri-operative complications. Technical difficulty in type 2 can be an obstacle, however, laparoscopic management should be considered.

## **Key statement:**

Management of MS is multidisciplinary. Good clinical acumen with use of the right diagnostic modalities can improve the surgical outcomes, especially in the presence of laparoscopic expertise.