

**Examining the concordance of MRCP and ERCP findings in patients with dilatation of the bile ducts admitted to Imam Khomeini Hospital, Ardabil from the winter of 2020 to the winter of 2021.**

**Abstract**

**Background:** In the field of gallstones, there is a need for less invasive diagnostic and treatment procedures that have high accuracy. The EUS method is less invasive than ERCP and is highly accurate, but its results depend on the operator and are not widely available in different centers. MRCP is a non-invasive procedure and has yielded good results for identifying stones and dilatation of common bile ducts. Although ERCP is the preferred method for diagnosing gallstones, but some details may not be seen by it. Therefore, in this study, we decided to check the concordance of MRCP and ERCP findings in patients with dilated bile ducts admitted to Imam Khomeini Hospital in Ardabil.

**Aim:** To determine the concordance of MRCP and ERCP findings in patients with dilated bile ducts admitted to Imam Khomeini Hospital in Ardabil.

**Materials and Methods:** Patients admitted to Imam Khomeini Hospital in Ardabil, who underwent bile duct ultrasound with complaints of pain, jaundice or liver enzyme disorders, were included in the study if their common bile duct was dilated and more than 6 mm. These patients underwent MRCP and then underwent ERCP procedure. MRCP findings were interpreted by a radiologist. In the next step, ERCP was performed by a gastroenterologist. The operators of these two procedures were blinded in order not to know the results.

**Results:** For the diagnosis of gallstones or masses by MRCP method, the sensitivity rate was 97.4, the specificity was 71.4, the positive predictive value was 90.5, and the negative predictive value was 90.9. Also for diagnosis the sclerosis diseases by MRCP method the sensitivity rate was 70.4, the specificity was 95.6, the positive predictive value was 93.2, and the negative predictive value was 79.

The results of this study showed that MRCP has high sensitivity and specificity in the diagnosis of CBD stone, mass and sclerosing, compared to diagnostic ERCP, it is a detailed examination and can be used as a primary diagnostic method

**Conclusion:** The results of this research can speed up diagnosis and reduce treatment costs and prevent unnecessary invasive diagnostic procedures in patients. On the other hand, the estimated clinical and economic effects of diagnostic MRCP versus diagnostic ERCP are very favorable, so that MRCP may both reduce costs and lead to improved quality of life compared to diagnostic ERCP.

**Keywords:** MRCP, ERCP, biliary