

ABSTRACT**ACCURACY OF CLINICAL FEATURES, LABORATORY FEATURES, AND
ULTRASOUND IMAGING WITHOUT MRI/CT SCAN COMPARED TO
INTRAOPERATIVE FINDINGS IN PATIENTS WITH
OBSTRUCTIVE JAUNDICE**

Background: Jaundice due to biliary obstruction may be caused by a heterogenous group of diseases that include both benign and malignant conditions. Mortality was very high among patients with malignant obstructive jaundice, while the patients with benign etiology had a good prognosis. MRCP has high sensitivity and specificity in diagnosing the etiology of extrahepatic biliary obstruction, but not always available in health care facilities.

Objective: To evaluate accuracy of clinical features, laboratory features, and ultrasound imaging in diagnosing the etiology of obstructive jaundice with intraoperative findings as gold standard.

Methods: This was an observational cross-sectional analytic study, conducted in the Surgical Ward of RSUD Dr. Soetomo Surabaya by obtaining patients' data, including information about the presence of progressive jaundice, fever, Courvoisier law, serum CA 19-9, serum CEA, ultrasound findings related with cause of biliary obstruction, and intraoperative findings associated with etiology of obstructive jaundice. Collected data were statistically analyzed using diagnostic test.

Result: In this study, sensitivity (Sn), specificity (Sp), and accuracy of each feature in differentiating masses and stones as the etiology of obstructive jaundice were obtained. Progressive jaundice (N = 44) has Sn 88.2%, Sp 37%, accuracy 56.8%. Fever (N = 34) has Sn 73.9%, Sp 90.9%, accuracy 79.4%. Courvoisier law (N = 26) has Sn 61.5%, Sp 61.5%, accuracy 61.5%. Serum CA 19-9 (N = 28) has Sn 75%, Sp 58.3%, accuracy 67.9%. Serum CEA (N = 20) has Sn 36.4%, Sp 100%, accuracy 65%. Ultrasound imaging (N = 30) has Sn 81.8%, Sp 100%, accuracy 93.3%.

Conclusion: Ultrasound imaging has the highest accuracy (93.3%) in diagnosing the etiology of obstructive jaundice, followed by fever (79.4%), serum CA 19-9 (67.9%), serum CEA (65%), Courvoisier law (61.5%), and progressive jaundice (56.8%) respectively.

Keywords: obstructive jaundice, ultrasound imaging, intraoperative findings