INPLASY PROTOCOL

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Stent insertion for malignant hilar obstruction: a meta-analysis of percutaneous versus endoscopic approaches

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Review question / Objective: This meta-analysis is conducted to compare the clinical effectiveness between trans-hepatic biliary stenting and endoscopic biliary stenting for malignant hilar obstruction patients.

Condition being studied: Malignant hilar strictures are primarily caused by hilar cholangiocarcinoma; other differentials include local extension of gall bladder cancer, hepatocellular car cinoma, and metastasis from a distant primary site. Majority of the patients with a hilar malignancy present late in the disease process, when curative surgical resection is no longer an option due to the extent of the disease. Palliation is the goal in these patients. In patients with Bismuth type I and II HCCA, it is a popular opinion that endoscopic biliary drainage is preferred over percutaneous transhepatic biliary drainage as it is quick and comparatively less invasive. However, in patients with advanced unresectable hilar malignancies (including Bismuth types III and IV), it is unclear if one approach is superior to the other.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 30 November 2022 and was last updated on 30 November 2022 (registration number INPLASY2022110156).

INTRODUCTION

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METHODS

Participant or population: Patients with malignant hilar obstruction.

Intervention: Trans-hepatic biliary stenting.

Comparator: Endoscopic biliary stenting.

Study designs to be included: Comparative studies.

Eligibility criteria: (a) Types of studies: comparative studies;(b) Diseases: patients with MHO;(c) Types of interventions: PTBS versus EBS;(d) Languages: not limited.

Information sources: PubMed, Web of science, and Wanfang databases were searched for the relative studies.

Main outcome(s): Stent patency.

Quality assessment / Risk of bias analysis: Cochrane risk-of-bias tool and Newcastle-Ottawa scale.

Strategy of data synthesis: For dichotomous variables, pooled odds ratios (ORs) with 95% confidence intervals (CIs) were calculated. Stent patency and OS were assessed by log[hazard ratio (HR)] with SE.

Subgroup analysis: Yes.

Sensitivity analysis: Yes.

Country(ies) involved: China.

Keywords: Hilar, Biliary, Stent.

Contributions of each author:

Author 1 - Gang Wang. Author 2 - Yu-Fei Fu. Author 3 - Yan-Jin Yu.