INTRODUCTION

Review question / Objective: The objective of this study was to compare transradial access approach with transfemoral access approach in patients undergoing Liver interventional Embolization.

Rationale: There have been similar articles before by other people, but so far there have been a number of new experiments, and now I'm adding new experimental data to the article and re-running the meta-analysis.
Condition being studied: There are professional interventional radiology practitioners to provide theoretical guidance, statistics to provide statistical analysis method guidance.

METHODS

Search strategy: We conducted a comprehensive electronic search in the PubMed, Embase, ClinicalTrials.gov and Cochrane Library database to identify relevant available articles from their inception to March 2022. The search terms included “hepatic,” “hepatocellular,” “liver,” “hepatoma,” “hepatomas” combined with the terms “chemoembolization,” “chemoembolization,” “radioembolization,” “radioembolization,” “Embolization,” “TACE,” “TARE,” “chemotherapy,” “radiotherapy,” “radiation” and “radial,” “transradial,” “trans-radial,” “TRA,” and “femoral,” “transfemoral,” “trans-femoral,” “TFA”. We also reviewed the reference lists of included studies and relevant reviews for identifying additional studies. Articles retrieved include both English and Chinese literature.

Participant or population: Patients undergoing Liver interventional Embolization.

Intervention: Transradial access approach with transfemoral access approach.

Comparator: Transfemoral access approach.

Study designs to be included: Cohort, RCT.

Eligibility criteria: Two of the authors scrutinized the titles and abstracts of all identified articles for the 1st step of selection, and then we read the full text to further exclude the unqualified studies. All noncomparative trials were excluded from analysis. And the inclusion criteria were set as follows: research in adults; studies focused on TRA vs TFA in hepatic interventions, which include bland embolization, HAIC, TACE and TARE; only studies presented at least one of the outcomes of interest in TRA vs TFA in hepatic interventions were considered, including both randomized controlled trials (RCTs) and nonrandomized controlled trials (non-RCTs) matching. If we could not reach a consensus, it would be resolved by consulting with a 3rd author.

Information sources: Electronic databases, contact with authors, trial registers, or grey literature.

Main outcome(s): The primary outcome of interest in this systematic review was the patients' preference.

Additional outcome(s): Other intraoperative and postoperative outcomes were considered as secondary outcomes.

Data management: Following information was independently extracted by 1 author and checked carefully by others: basic information about the researches (1st author, year of publication, study location, study period, study design, number of patients, operation options), demographics, and clinical characteristics of the included patients (diagnosis, number of patients, number of procedures, age, gender), intraoperative and postoperative outcomes (patients' preference, success rate, duration of the procedure, fluoroscopy time, radiation dosage, contrast volume, complications). And we define “complications” as puncture related complications, namely access site and related vascular complications after puncture as almost all studies focus on.

Quality assessment / Risk of bias analysis: The meta-analysis was conducted using the R 4.1.2 version. Quantitative statistical analysis for dichotomous variables was carried out using the Mantel–Haenszel method with the relative risk (RR) as the summary statistic. Weighted mean differences (WMDs) were used as the summary statistic for quantitative analysis of continuous variables. Both the RR and WMD values were reported with 95% confidence intervals (CIs).

Strategy of data synthesis: M-H.
Subgroup analysis: None.

Sensitivity analysis: Random effects model.

Language: English Chinese.

Country(ies) involved: China.

Keywords: Transradial access, Transfemoral access, Hepatic Interventional Embolization.

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