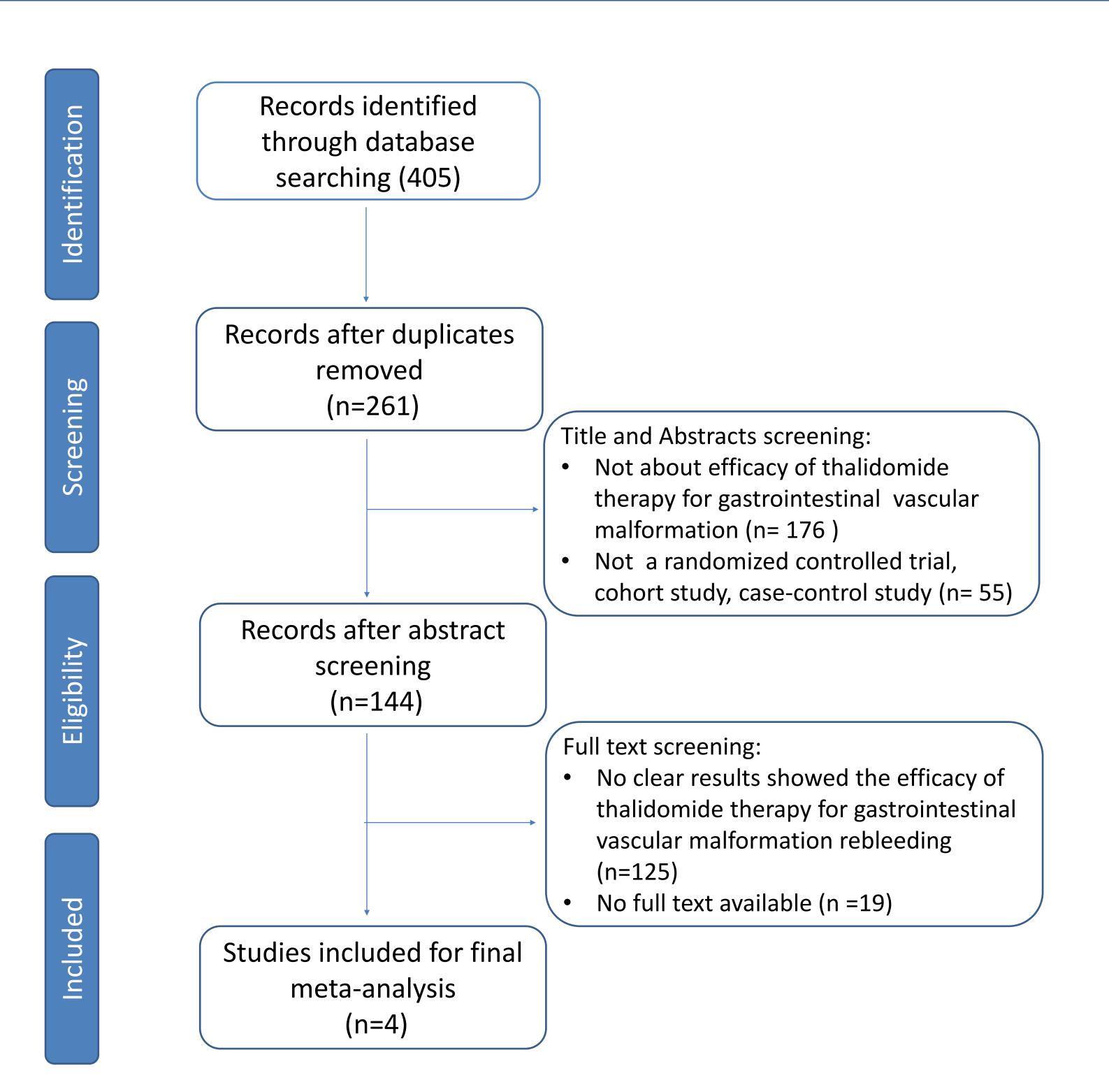
Efficacy of Thalidomide for the Treatment of Gastrointestinal Bleeding from Vascular

Malformation: A Meta-analysis and Systematic Review
Yuntao Zou¹, MD, Nan Gao², MD, Mohamed Abdelbaky¹, MD, Dhruv Singh¹, MBBS, Yi-Chia Wu¹, MD, Bing Chen³, MD, Yichen Wang⁴, MD, Howard Chung³, MD, Arkady Broder¹, MD, FACG

1 Rutgers Medical School of Robert Wood Johnson, Saint Peter's University Hospital, 2 Lincoln Medical Center, 3 New York University School of Medicine, 4 Trinity Health of New England





Introduction

Gastrointestinal bleeding from vascular malformation is hard to treat. Thalidomide has been shown with therapeutic effects in several studies. We performed a meta-analysis for its efficacy on GI bleeding due to vascular malformation.

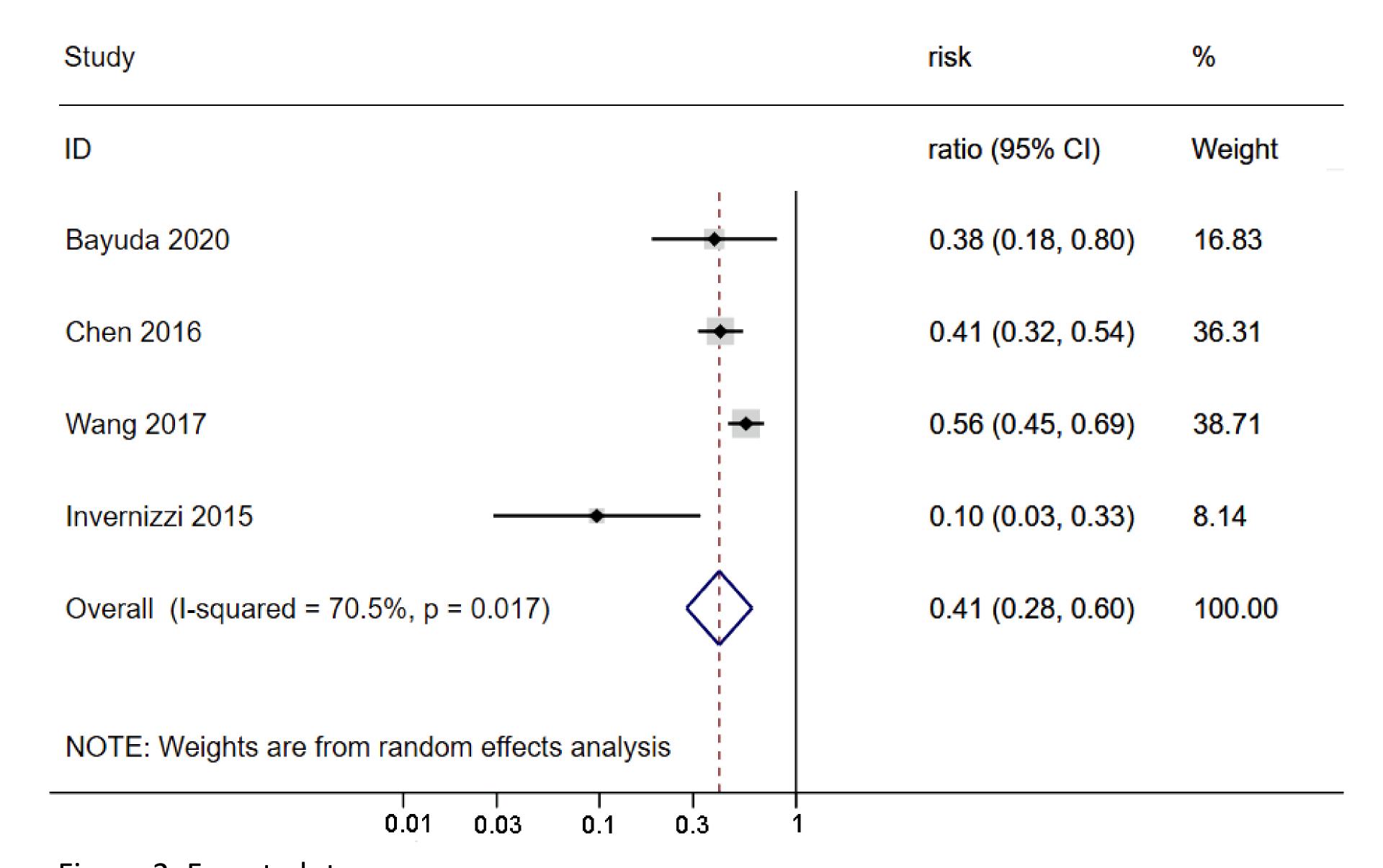


Figure 2. Forest plot

Methods

MEDLINE, the Cochrane Library, and EMBASE were searched up to June 5th.

The following keywords were used: "Arteriovenous Malformation", "AVM", "Angioectasia", "Angiodysplasia", "Vascular Malformation", "Telangiectasia", "Thalidomide", "Contergan", "Thalomid", "α-Phthalimidoglutarimide".

Observational studies and clinical trials that utilized Nivolumab for refractory esophageal cancer were included.

Bleeding cessation rates were studied as primary outcomes.

Data were analyzed with STATA version 16.0 (Stata Corp, College Station, TX, USA).

Results

- A total of 405 manuscripts were identified
- Four observational or clinical studies with 194 patients meeting inclusion criteria.
- Patient median or mean ages were more than 50 in all 4 studies
- ■89 (45.4%) individuals were male.
- ■The dose of thalidomide ranged from 50 mg to 200 mg per day.
- ■The duration was from 3 months to 45 months.
- For patients with gastrointestinal bleeding from vascular malformation, thalidomide has a bleeding cessation rate of 41% (95%, 28%-60%) in 6-12 months.

Discussion

Our meta-analysis with all available studies did not show a significant decrease in bleeding cessation rates compared to the non-thalidomide group reported by Wang's study (41% vs 46%)

Several studies showed that thalidomide was helpful in the yearly bleeding episodes, yearly red blood cell transfusion requirement, transfusion dependence, overall and bleeding-related hospitalization rate, endoscopic treatment requirement, and hemoglobin level changes, but none of the above topics had enough data to perform a meta-analysis.

Contact

SAINT PETER'S
HEALTHCARE SYSTEM

Yuntao Zou, MD Saint Peter's University Hospital Email: yuntaoz92@gmail.com Phone:772-240-0903

References

- 1. Bayudan AM, Chen CH. Thalidomide for refractory gastrointestinal bleeding from vascular malformations in patients with significant comorbidities. World J Clin Cases. 2020 Aug 6;8(15):3218-3229. doi: 10.12998/wjcc.v8.i15.3218.
- 3. Wang Y, Zhang JP, Niu Y, Li JS. Re-bleeding events in patients with small intestinal vascular malformation: Risk factors and effect of treatment with thalidomide. Shijie Huaren Xiaohua Zazhi 2017; 25(6): 552-559
- 4. Invernizzi R, Quaglia F, Klersy C, Pagella F, Ornati F, Chu F, Matti E, Spinozzi G, Plumitallo S, Grignani P, Olivieri C, Bastia R, Bellistri F, Danesino C, Benazzo M, Balduini CL. Efficacy and safety of thalidomide for the treatment of severe recurrent epistaxis in hereditary haemorrhagic telangiectasia:
- results of a non-randomised, single-centre, phase 2 study. Lancet Haematol. 2015 Nov;2(11):e465-73. doi: 10.1016/S2352-3026(15)00195-7. Epub 2015 Oct 27.