

Is Curcumin At The Threshold of Therapeutic Effectiveness On Patients With Colon Cancer? – A Systematic Review

Laila Shafei, Dr. Nashiru Billa, Dr. Mohamed Izham
College of Pharmacy, QU Health, Qatar University, Doha, Qatar



Introduction

- Colon cancer is the overgrowth within the colon and is third most common cancer globally
- Curcumin is a constituent found in turmeric, an Indian spice
- It possess chemoprotective and anticancer effects in vitro
- This study aim to systematically review literature in regard of trajectory of curcumin in clinical practice

Methodology

- **Databases:** PubMed, Medline and SCOPUS & grey literature
- **Inclusion Criteria:** Clinical trials, Colon cancer only, English language and Humans (2000-2020)
- **Exclusion Criteria:** In vitro, non-English, other types of cancer
- **Quality Assessment:** JBI Critical appraisal checklist to check methods

Results

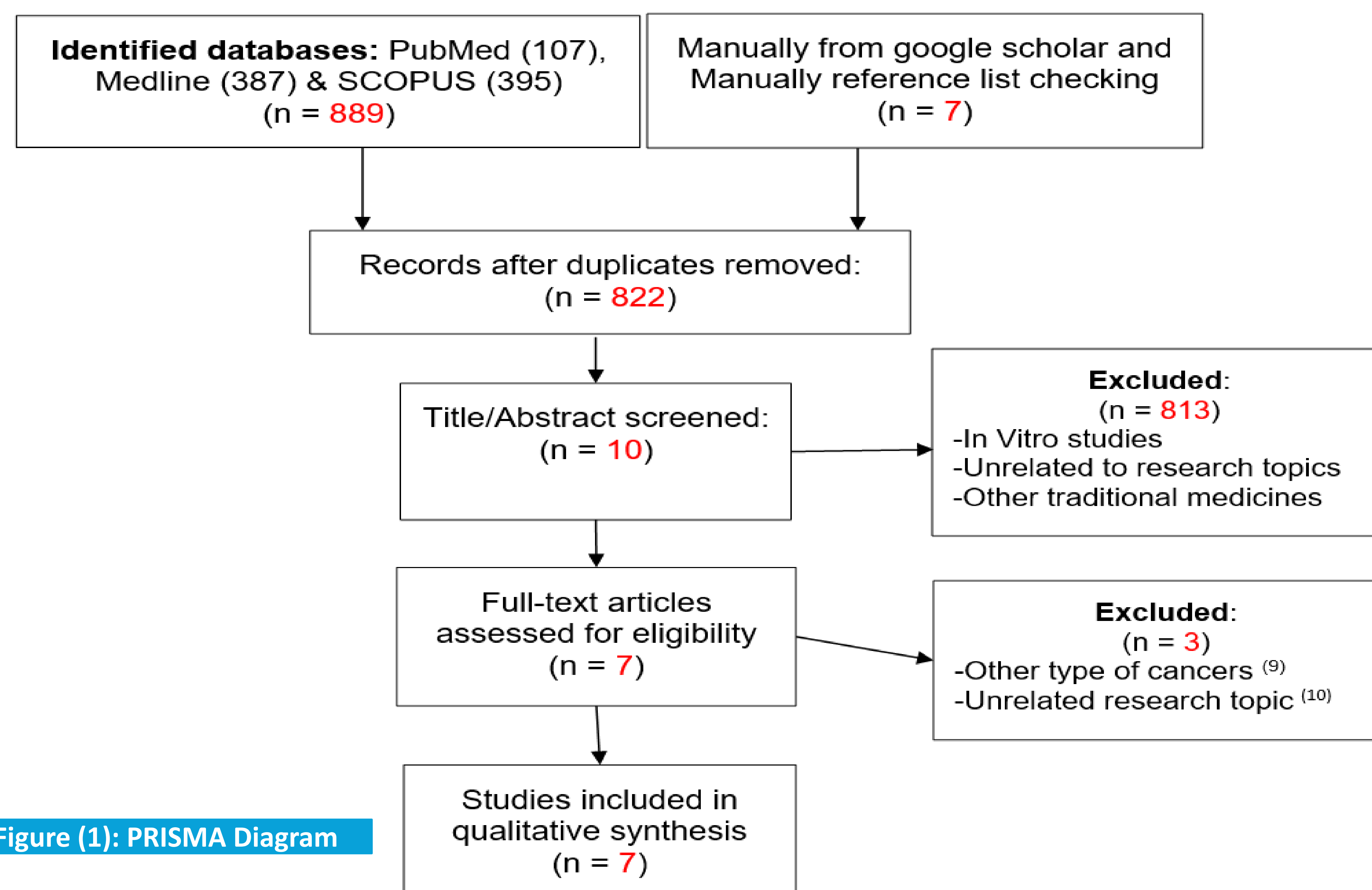


Figure (1): PRISMA Diagram

Table (1):Articles' results

Data Extracted	Cheng. et.al	Ricky S. et.al	Ricky S. et al.	Robert C. et.al	Zhen-Yu H. et.al	Richard G. et. al.	Lyen H. et.al
Country (year)	China (2001)	UK (2001)	UK (2004)	UK (2011)	China (2011)	Australia (2018)	UK (2019)
Colon cancer stage	Premalignant lesions in colon	Not specified	Not specified	Not specified	Not Specified	Metastatic cancer	Metastatic cancer
Regression of cancer	Histological improvement in 7 patients	Stable disease on CT scan	No improvement	Patients did not improve	Increased the p53 expression	Showed progressive disease	18 died and 2 had liver metastasis
Adverse drug reactions	No toxicities developed.	Nausea and diarrhea	Nausea and diarrhea.	Nausea and diarrhea. Well tolerated	Nausea and diarrhea. Well tolerated	Facial enema, anemia & echinocytes & red blood cell abnormality	Abdominal pain, Anorexia, Constipation Diarrhea, Nausea.

Limitations

- 1- Did not include Curcumin brand names in search terms, English limited, Small sample size
- 2- The review did not proceed with a meta-analysis
- 3- The JBI tool does not give an overall score for the articles' quality

Conclusion

- 1- **In terms of effectiveness**, effect varied between studies, it was not effective in metastasis unlike other stages it reached stable disease
- 2- **In terms of safety**, curcumin is tolerated in patients in doses up to 6 grams per day. Common side effects were Nausea and Diarrhea
- 3- **For future search** conduct more RCTs using oral doses up to 6-8 grams with specific cancer stages