

## 2. Cancer (Condition after Cancer Surgery and Unspecified Adverse Drug Reactions of Anti-cancer Drugs)

### 11. Gastrointestinal, Hepato-Biliary-Pancreatic Diseases

#### References

Ishizuka M, Shibuya N, Nagata H, et al. Perioperative administration of traditional Japanese medicine daikenchuto relieves postoperative ileus in patients undergoing surgery for gastrointestinal cancer: a systemic review and meta-analysis. *Anticancer Research* 2017; 37: 5967-74. Pubmed ID: 29061775

#### 1. Objectives

To conduct a meta-analysis to determine the efficacy of perioperative daikenchuto (大建中湯) (DKT) administration for relief of postoperative ileus (PI) in patients undergoing surgery for gastrointestinal (GI) cancer

#### 2. Data source

Cochrane Library, PubMed, the Web of Science, and ICHUSHI (literature published up to December 2016) were searched to collect relevant articles, using the search terms of daikenchuto, TJ-100, and TU-100.

#### 3. Selection of study

Inclusion criteria: 1) RCTs or other comparative studies except for those with a retrospective design; 2) description of the evaluation of PI in GI cancer; 3) description of the data on the risk ratio (RR) or standardized incidence ratios (with 95% confidence interval); 4) description of sample size; 5) written in Japanese or English; 6) any types of PI (including paralytic ileus).

Exclusion criteria: 1) non-reporting of a control group, or inability to extract the number of outcome events; 2) surgery for urological, gynecological, or pediatric malignancies or non-malignancies, surgery on animal models; 3) letters, comments, correspondences, editorials, or reviews; 4) studies for which published articles had considerable overlap between authors, centers, and participants.

#### 4. Data extraction

Full text reviews were performed independently by two authors on the basis of the inclusion and exclusion criteria and PICO criteria. Any disagreements were resolved by discussion. The same two authors also independently extracted the following information from each eligible article: first author's name, year of publication, country of the study, study design, number of PI occurrences, and sample size. If required data could not be obtained, the original authors were contacted.

#### 5. Main results

The search yielded 661 articles, of which 165 were regarded as duplicate articles and thus excluded. Additional 468 articles were also excluded by title/abstract review and PICO. The remaining 28 articles were reviewed in full-text, of which 7 articles (6 RCTs and 1 prospective study; n=1134) were applicable to this study and thus included in this meta-analysis.

Arm 1: administration of DKT (n=588); Dose 15 g/day in 5 studies, 7.5 g/day in 1 study, and 27 g/day in 1 study

Arm 2: no administration of DKT (n=546)

PI occurred in 67 patients (11.4%) in Arm 1 and 87 patients (15.9%) in Arm 2, showing significant reduction of PI occurrence in Arm 1 compared with Arm 2 (RR=0.58; 95% CI, 0.35–0.97;  $P=0.04$ ;  $I^2=48\%$ ).

#### 6. Conclusion

Daikenchuto significantly reduces postoperative ileus in GI cancer patients.

#### 7. From Kampo medicine perspective

None

#### 8. Safety assessment in the article

Not mentioned.

#### 9. Abstractor's comments

Daikenchuto is the Kampo medicine most commonly studied regarding its efficacy as an inhibitor of GI motility and for the prevention of ileus. This is a clinically meaningful and valuable article describing a meta-analysis showing the efficacy of daikenchuto for postoperative ileus in GI cancer patients. Evidence-based Kampo medicine has long been advocated, but evidence from meta-analyses has been limited. With increases in RCTs, further systematic reviews are desired.

#### 10. Abstractor and date

Kogure T, 1 June 2020.