



Cochrane
Library

Cochrane Database of Systematic Reviews

Daikenchuto for reducing postoperative ileus in patients undergoing elective abdominal surgery (Review)

Hoshino N, Takada T, Hida K, Hasegawa S, Furukawa TA, Sakai Y

Hoshino N, Takada T, Hida K, Hasegawa S, Furukawa TA, Sakai Y.
Daikenchuto for reducing postoperative ileus in patients undergoing elective abdominal surgery.
Cochrane Database of Systematic Reviews 2018, Issue 4. Art. No.: CD012271.
DOI: [10.1002/14651858.CD012271.pub2](https://doi.org/10.1002/14651858.CD012271.pub2).

www.cochranelibrary.com

[Intervention Review]

Daikenchuto for reducing postoperative ileus in patients undergoing elective abdominal surgery

Nobuaki Hoshino¹, Toshihiko Takada², Koya Hida¹, Suguru Hasegawa³, Toshi A Furukawa⁴, Yoshiharu Sakai¹

¹Department of Surgery, Kyoto University Hospital, Kyoto, Japan. ²Shirakawa Satellite for Teaching And Research (STAR) in General Medicine, Fukushima Medical University, Shirakawa City, Japan. ³Department of Surgery, Fukuoka University Hospital, Fukuoka, Japan. ⁴Department of Health Promotion and Human Behavior, Kyoto University Graduate School of Medicine/School of Public Health, Kyoto, Japan

Contact address: Nobuaki Hoshino, Department of Surgery, Kyoto University Hospital, 54 Shogoin-Kawahara-cho, Sakyo-ku, Kyoto, 606-8507, Japan. hoshinob@kuhp.kyoto-u.ac.jp.

Editorial group: Cochrane Colorectal Cancer Group.

Publication status and date: New, published in Issue 4, 2018.

Citation: Hoshino N, Takada T, Hida K, Hasegawa S, Furukawa TA, Sakai Y. Daikenchuto for reducing postoperative ileus in patients undergoing elective abdominal surgery. *Cochrane Database of Systematic Reviews* 2018, Issue 4. Art. No.: CD012271. DOI: [10.1002/14651858.CD012271.pub2](https://doi.org/10.1002/14651858.CD012271.pub2).

Copyright © 2018 The Cochrane Collaboration. Published by John Wiley & Sons, Ltd.

ABSTRACT

Background

Postoperative ileus is a major complication for persons undergoing abdominal surgery. Daikenchuto, a Japanese traditional medicine (Kampo), is a drug that may reduce postoperative ileus.

Objectives

To assess the efficacy and safety of Daikenchuto for reducing prolonged postoperative ileus in persons undergoing elective abdominal surgery.

Search methods

We searched the following databases on 3 July 2017: CENTRAL, MEDLINE, Embase, ICHUSHI, WHO (World Health Organization) International Clinical Trials Registry Platform (ICTRP), EU Clinical Trials registry (EU-CTR), UMIN Clinical Trials Registry (UMIN-CTR), ClinicalTrials.gov, The Japan Society for Oriental Medicine (JSOM), American Society of Clinical Oncology (ASCO), Society of American Gastrointestinal and Endoscopic Surgeons (SAGES). We set no limitations on language or date of publication.

Selection criteria

We included randomised controlled trials (RCTs) comparing Daikenchuto with any control condition in adults, 18 years of age or older, undergoing elective abdominal surgery.

Data collection and analysis

We applied standard methodological procedures expected by Cochrane. Two review authors independently reviewed the articles identified by literature searches, extracted data, and assessed risk of bias of the included studies using the Cochrane software Review Manager 5.

Main results

We included seven RCTs with a total of 1202 participants. Overall, we judged the risk of bias as low in four studies and high in three studies. We are uncertain whether Daikenchuto reduced time to first flatus (mean difference (MD) -11.32 hours, 95% confidence interval (CI) -17.45 to -5.19; two RCTs, 83 participants; very low-quality evidence), or time to first bowel movement (MD -9.44 hours, 95% CI -22.22 to 3.35; four RCTs, 500 participants; very low-quality evidence) following surgery. There was little or no difference in time to resumption of regular

Daikenchuto for reducing postoperative ileus in patients undergoing elective abdominal surgery (Review)

1

Copyright © 2018 The Cochrane Collaboration. Published by John Wiley & Sons, Ltd.

solid food following surgery (MD 3.64 hours, 95% CI -24.45 to 31.74; two RCTs, 258 participants; low-quality evidence). There were no adverse events in either arm of the five RCTs that reported on drug-related adverse events (risk difference (RD) 0.00, 95% CI -0.02 to 0.02, 568 participants, low-quality evidence). We are uncertain of the effect of Daikenchuto on patient satisfaction (MD 0.09, 95% CI -0.19 to 0.37; one RCT, 81 participants; very low-quality of evidence). There was little or no difference in the incidence of any re-interventions for postoperative ileus before leaving hospital (risk ratio (RR) 0.99, 95% CI 0.06 to 15.62; one RCT, 207 participants; moderate-quality evidence), or length of hospital stay (MD -0.49 days, 95% CI -1.21 to 0.22; three RCTs, 292 participants; low-quality evidence).

Authors' conclusions

Evidence from current literature was unclear whether Daikenchuto reduced postoperative ileus in patients undergoing elective abdominal surgery, due to the small number of participants in the meta-analyses. Very low-quality evidence means we are uncertain whether Daikenchuto improved postoperative flatus or bowel movement. Further well-designed and adequately powered studies are needed to assess the efficacy of Daikenchuto.

PLAIN LANGUAGE SUMMARY

Does Daikenchuto reduce postoperative ileus in persons undergoing elective abdominal surgery?

Background

Postoperative ileus is the medical term for a functional obstruction of the bowel, and a common complication in persons who undergo abdominal surgery. It is characterized by lack of bowel movements, causing an accumulation of bowel contents, and delayed flatus (passing gas). Persons with persistent postoperative ileus are immobilized, have discomfort and pain, and are at increased risk for other complications. This results in prolonged hospitalisation and increased medical costs. Daikenchuto is a Japanese traditional medicine (also known as Kampo) that may reduce postoperative ileus.

Review question

This review investigated whether Daikenchuto reduced postoperative ileus in persons undergoing abdominal surgery.

Study characteristics

We included seven studies (1202 participants), in which the participants were allocated at random (by chance alone) to receive one of several clinical interventions, where Daikenchuto was compared with any other medicine, placebo, or no treatment. The searches were performed 3 July 2017. We evaluated: time from completion of abdominal surgery to first flatus, time to first bowel movement, time to resumption of regular solid food intake, adverse events related to Daikenchuto, patient satisfaction, re-interventions for postoperative ileus before leaving hospital, and length of hospital stay.

Key results and quality of evidence

Overall, there were a small number of participants included in each analysis. We could not fully investigate time from surgery to first flatus, to first bowel movement, or to resumption of regular solid food intake, any medicine-related adverse events, patient satisfaction, any re-interventions for postoperative ileus before leaving hospital, or length of hospital stay.

We considered the quality of evidence for all presented outcomes as moderate to very low.

Authors' conclusion

Based upon our findings, it was uncertain whether Daikenchuto accelerated post-surgical bowel motility in persons undergoing abdominal surgery, and thus, unclear whether Daikenchuto reduced postoperative ileus.