The role of physical activity for recovery after surgical procedures

Akademisk avhandling
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av Aron Onerup

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The role of physical activity for recovery after surgical procedures

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Abstract
The aim of this thesis was to determine the association between and effect of preoperative physical activity and postoperative recovery after surgery due to gallbladder disease or colorectal cancer.

Paper I examined the association between self-reported level of physical activity before cholecystectomy and postoperative recovery in an observational cohort study. Participants with regular physical activity had lower risk for prolonged sick leave compared to participants who were inactive. Papers II and III determined the association between self-reported level of physical activity before colorectal cancer surgery and recovery in an observational cohort study. Habitual physical activity was not associated with the primary outcome measure, length of hospital stay, but an association was found between higher levels of physical activity and improvements in physical recovery three weeks postoperatively and reduced risk for postoperative complications. Paper IV describes the design of a randomised controlled trial with a pragmatic short-term physical activity intervention before and after colorectal cancer surgery, aimed to improve self-assessed physical recovery four weeks postoperatively as well as several secondary outcome measures of postoperative recovery. Paper V reports the main results from this randomised controlled trial, where the intervention had no effect on any of the primary or secondary short-term outcome measures in the study. The results from the works included in this thesis imply that habitual physical activity is associated with faster postoperative recovery after cholecystectomy and colorectal cancer surgery, but that postoperative recovery cannot be improved by a short-term physical activity intervention.

Keywords: physical activity, surgery, colorectal cancer