

Exercise training is effective as 'prehabilitation' before surgery in an elderly population

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Cardiopulmonary Exercise Testing (CPET) assessment and exercise training in an elderly population is safe and well tolerated, according to the results of a new feasibility study, conducted in the UK.

CPET is a non-invasive measurement of the cardiovascular and respiratory system during exercise to assess exercise capacity and cardiopulmonary <u>fitness</u>. According to the researchers, the role of <u>exercise training</u> or 'prehabilitation' for optimising preoperative physiological function to counter catabolic effects of surgery has received little attention in cancer patients. This is especially important for bladder cancer patients, where radical cystectomy (RC), the mainstay of treatment for muscle invasive bladder cancer, is associated with significant morbidity.

"Promising evidence from systematic reviews suggests that exercise training can improve cardiopulmonary fitness in the short time available for surgery and reduce risk of postoperative complications, " the authors emphasized in the abstract published for the European Multidisciplinary Meeting for Urological Cancers, taking place in Marceille, France, on 15-17 November 2013.

"Although it has been established that preoperative fitness using CPET is a good indicator for postoperative recovery, there is very little evidence to indicate whether fitness can be improved in a short time period prior



to surgery in an elderly population," commented the lead author of the study Dr. Srijit Banerjee of Norfolk and Norwich University Hospital's Department of Urology in Norwich, UK.

The authors conducted a randomised controlled feasibility study to examine whether a short preoperative course of supervised exercise sessions is tolerated and whether it can lead to an improvement in cardiopulmonary fitness.

30 patients undergoing radical cystectomy were randomised to either control or intervention arm after initial CPET assessment. Patients in the intervention arm were offered twice weekly supervised exercise sessions preoperatively for 4 weeks, whilst the control arm had standard care. This was followed by further CPET assessment in both groups at the end of 4 weeks.

"Our feasibility study looking at the role of preoperative <u>exercise</u> based upon individual levels of baseline fitness appears to be well tolerated and safe in a primarily <u>elderly population</u> awaiting cystectomy," commented Dr. Banerjee on the findings. "Even in a short time period there appears to be an improvement in the fitness level in this population."

"Based on these results we are already in the process of examining whether the improvement in fitness level translates into a better postoperative outcome with reduced hospital stay. A further larger scale multicenter randomized controlled trial is planned."

More information: Reference: Banerjee, S. et al. Preoperative exercise protocol to aid recovery of radical cystectomy: Results of a feasibility study, Abstract O2, 5th EMUC.



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