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MERITS OF EXERCISE THERAPY BEFORE MAJOR SURGERY

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Objectives

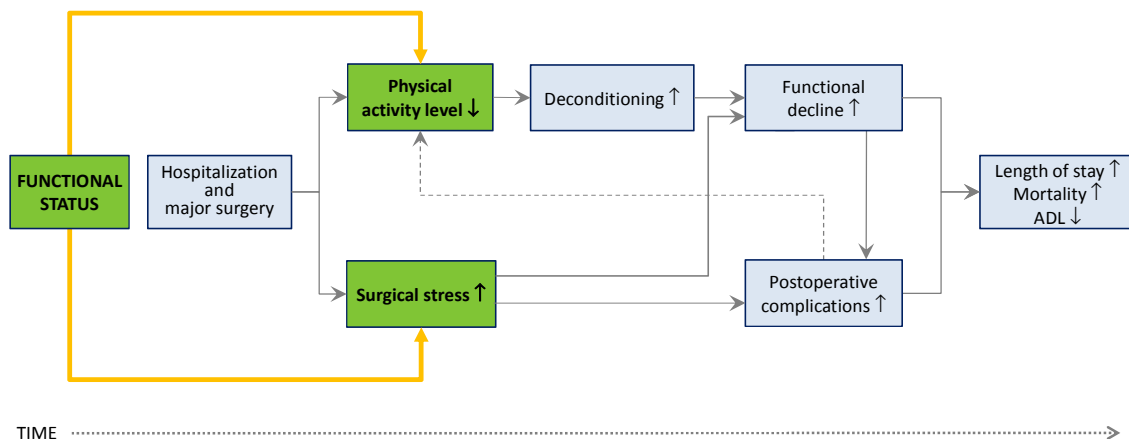
Successes of society have led to an increasing elderly population. These elderly should be able to participate in society as long as possible. However, with an increasing age their adaptive capacity gradually decreases, making them vulnerable to reduced functioning and social participation especially in major life events like hospitalization and surgery. Exercise therapy before surgery might augment the postoperative outcomes by improving functional status and reducing the complication and mortality rate. The aim of this study was to study the merits of exercise therapy before major elective surgery.

Methods

We used a narrative approach to review the available, recent literature (i.e., observational studies, CPRs, (pilot) RCTs, reviews and meta-analyses) on preoperative exercise before cardiac, thorax, abdominal surgery and joint replacement (TJR).

Results

In Figure 1 we depicted the possible effects of surgery and hospitalization in older patients and the role of preoperative functional status. There is high quality evidence that preoperative exercise in patients scheduled for cardiovascular surgery is safe and effective. Moreover, there is circumstantial evidence suggesting preoperative exercise for thorax, abdominal and TJR surgery is effective, provided that this is offered to the high-risk patients.



Conclusions

Preoperative exercise deserves implementation in clinical care for the vulnerable group of patients scheduled for major elective surgery who are at risk for prolonged hospitalization, complications and/or death. Future research should aim to include this at-risk group, evaluate high-intensity exercise interventions and power trials sufficiently.