

A Specific Inpatient Aquatic Physiotherapy Program Improves Strength after Total Hip or Knee Replacement Surgery

Rahmann, A.E., Brauer, S.G. and Nitz, J.C., 2009. A specific inpatient aquatic physiotherapy program improves strength after total hip or knee replacement surgery: a randomized controlled trial. *Archives of physical medicine and rehabilitation*, 90(5), pp.745-755.

Setting the Scene:

The objective here was to evaluate the effect of inpatient aquatic physiotherapy in addition to usual ward physiotherapy on the recovery of strength, function, and gait speed after total hip or knee replacement surgery.

What did they do?

In an acute-care private hospital, a pragmatic randomized controlled trial with blinded 6-month follow-up was performed on 65 people undergoing primary hip or knee arthroplasty. Participants were randomly assigned to receive supplementary inpatient physiotherapy, beginning on day 4: aquatic physiotherapy, nonspecific water exercise, or additional ward physiotherapy.

At day 14, hip abductor strength was significantly greater after aquatic physiotherapy intervention than additional ward treatment or water exercise. No adverse events occurred with early aquatic intervention.

Takeaway home message:

It is likely that a specific aquatic physiotherapy intervention had a beneficial effect on the recovery of hip muscle strength early after surgery. No adverse events occurred in either of the groups, indicating that aquatic physiotherapy is a safe and effective alternative to additional ward physiotherapy. Further studies are required to confirm our findings and to determine whether this improved postoperative strength translates into better mediolateral stability, and therefore greater improvements in gait pattern and other functional activities such as stepping.



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