

Publication

Abductor muscle strength deficit in patients after total hip arthroplasty for hip osteoarthritis: a protocol for a systematic review and meta-analysis

JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)

ID 4600369

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Year 2020

Title Abductor muscle strength deficit in patients after total hip arthroplasty for hip osteoarthritis: a protocol for a systematic review and meta-analysis

Journal BMJ open

Volume 10

Number 7

Pages / Article-Number e035413

Keywords adult orthopaedics; hip; rehabilitation medicine

Conservation of abductor muscle strength is directly associated with physical function after total hip replacement (THA). Although many studies have tried to explore and quantify a potential abductor muscle strength deficit after THA as well as identify possible causes and treatment options, this topic has not been addressed systematically.; Human-based studies reporting measurements of hip abductor strength will be included in this review. Studies reporting on hip abductor strength measured manually or isometric measurements at an abduction angle other than 0° will not be considered. No restriction will be placed on study design, publication date operative approach, prosthesis design, age and sex of the patients or severity of OA. Data sources will be Embase via embase.com, Medline ALL via Ovid and the Cochrane Central Register of Controlled Trials. The preliminary search was conducted on 5 May 2019. Data regarding absolute values or torque ratio of hip abductor torque between sides as well as patient demographic data, surgical approaches and rehabilitation protocols will be extracted. The assessment of quality and risk of bias will be performed with the modified Newcastle-Ottawa Scale. The screening, data extraction and quality assessment will be performed by two reviewers independently. Where necessary, a third review author will make a final judgement. Narrative synthesis as well as tabular presentation of the extracted data will be included. Whenever possible, metaregression and subgroup specific meta-analyses will be used to investigate the influence of time since THA and type of measurement (isokinetic or isometric) on the different outcomes. In case of sufficient information, these analyses will be extended to include characteristics such as age, sex, surgical approach or rehabilitation programme.; No ethics approval is required. The results will be disseminated through peer-reviewed publications and conference presentations.; CRD42020153185.

Publisher BMJ Publishing Group

ISSN/ISBN 2044-6055

URL <https://bmjopen.bmj.com/content/10/7/e035413.long>

edoc-URL <https://edoc.unibas.ch/77805/>

Full Text on edoc Available;

Digital Object Identifier DOI 10.1136/bmjopen-2019-035413

PubMed ID <http://www.ncbi.nlm.nih.gov/pubmed/32690507>

ISI-Number MEDLINE:32690507

