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Editorial

Scarcity of high-quality evidence for common orthopaedic operations

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Abstract

Orthopedic surgeries address different parts of the body, and while they are still invasive procedures. Knee cartilage (meniscal) repair, shoulder rotator cuff repair, carpal tunnel decompression surgery, and total hip and knee replacements were among the procedures performed. As per the results, carpal tunnel decompression and total knee replacement were found to be superior to non-operative therapy in randomised controlled trials. There are numerous limitations to this review that could have influenced the results, such as the inclusion of various study designs of differing quality. As a result, researchers believe there is a pressing need to prioritise research, particularly for techniques with a weak evidence basis, and to conduct definitive randomised controlled trials to assess their clinical usefulness. They claim that this will “improve patient treatment, reduce healthcare costs, allow for more efficient use of our resources, and boost societal faith in orthopaedic interventions.”

INTRODUCTION

There are many different orthopedic surgeries that surgeons perform. These surgeries address different parts of the body, and while they are still invasive procedures. Knee replacement surgery can either replace part of the knee joint (partial replacement) or the entire joint (total replacement). In Anterior Cruciate Ligament surgery, a portion of a tendon from another region of the body is grafted onto the injured segment of the ACL during surgery. Arthroscopy is a surgical treatment that can be performed on either the knee or the shoulder. It's a minimally invasive orthopaedic technique that involves inserting a small camera into the body near the joint to obtain a clear view of the damage. Other common joint replacement surgeries are hip replacement surgery and shoulder replacement surgery

In a recent analysis, it was revealed that common orthopaedics operations lack high-quality evidence. The findings show that some of the procedures are still recommended under certain situations; despite they lack strong supporting evidence. The majority of routine bone and joint (orthopaedic) operations, such as hip replacements and shoulder repair surgery, lack high-quality evidence, owing to a lack of decisive trials.

National clinical guidelines advocate a variety of interventions, however many surgical interventions lack readily available or high-quality information on their clinical effectiveness, which raises concerns.

A group of UK researchers compared the clinical effectiveness of the 10 most frequent orthopaedic operations to no treatment, placebo, or non-operative care using data from prior assessments of randomised controlled trials and other studies. They then compared the results of each procedure to national guidelines to see if the recommendations were consistent with the body of data [1].

Knee cartilage (meniscal) repair, shoulder rotator cuff repair, carpal tunnel decompression surgery, and total hip and knee replacements were among the procedures performed.

As per the results, carpal tunnel decompression and total knee replacement were found to be superior to non-operative therapy in randomised controlled trials.

However, no randomised controlled trials comparing total hip replacement or meniscal repair to non-operative treatment have been conducted. And trial evidence for the other six procedures showed no benefit over non-operative care. They also discovered that, while seven of the techniques have been recommended for usage by national guidelines, the majority of them lack a high-quality body of evidence to conclusively back these recommendations.

This is owing to a paucity of randomised controlled trials comparing the surgery to non-operative care.

They emphasise that the lack of trial evidence does not imply that the interventions are ineffective; nonetheless, assessing the true treatment effect without evidence from randomised controlled trials is extremely challenging.

There are numerous limitations to this review that could have influenced the results, such as the inclusion of various study designs of differing quality. As a result, researchers believe there is a pressing need to prioritise research, particularly for techniques with a weak evidence basis, and to conduct definitive randomised controlled trials to assess their clinical usefulness.

They claim that this will “improve patient treatment, reduce healthcare costs, allow for more efficient use of our resources, and boost societal faith in orthopaedic interventions.”

References:

1. <https://www.news-medical.net/news/20210708/Common-orthopedic-procedures-lack-high-quality-evidence-analysis-reveals.aspx>

