

Sports Therapy Interventions Following Total Hip Replacement

A Randomized Controlled Trial

by Dr. med. Heidrun Beck, Franziska Beyer, Franziska Gering, Prof. Dr. med. Klaus-Peter Günther, Dr. rer. medic. Cornelia Lütznier, Dr. rer. medic. Achim Walther, and PD Dr. med. Maik Stiehler in issue 1–2/2019

Rehabilitation Programs Instead of Sports Rehabilitation

Sports rehabilitation and rehabilitation in a rehabilitation facility are two different things.

It is an unfortunate development that sports rehabilitation is increasingly prescribed instead of rehabilitation programs. The statutory health insurances pay for sports rehabilitation about 5 euros per session, up to a maximum of 50 sessions. These sessions focus on group-dynamic exercises intended to promote social contacts among group members.

To be able to address individual conditions which still need to be treated, targeted prescription of physiotherapy, physiotherapy on resistance machines as well as sequential training are available. However, exactly these measures are not covered by sports rehabilitation. The article is somewhat misleading as it does not mention certain effective measures, such as rehabilitation provided by a team of physicians, physiotherapists and sports scientists, as well as the use of sequential training. Many community-based physicians are concerned about their budget and rather prescribe sports rehabilitation instead of physiotherapy on resistance machines and “D1”. Likewise, not enough use is made of the possibility to apply for a rehabilitation measure using template 61, which any statutory health insurance physician can do.

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Conflict of interest statement

The author is an orthopedist in a rehabilitation center.

Sports Rehabilitation (“Rehabilitationssport”) Is Effective in Improving Motor Function

According to current recommendations for physical exercising, between 2 and 3 exercise units per week are necessary for healthy individuals and patients with chronic disease alike (1). It is highly unlikely that a 45-minute sports therapy intervention, taking place once a week, will achieve improvements in strength, metabolic and cardiovascular parameters.

For orthopedic diseases, sports rehabilitation is not a concerted treatment that exclusively improves mobility and stability of the joint surrounding muscles after joint replacement. Rather, the goal after joint replacement is more activity to enable patients to resume an active lifestyle and to adequately load the new joint. However, to achieve the muscular goals described in the study, an exercise program tailored especially to patients’ muscular deficits

would have been required. Such a program was aspired, but could not be realized.

Additionally, given the further protocol violations, the study cannot be regarded as a controlled trial. Because of these limitations, it should not be concluded that the currently offered sports rehabilitation for patients after total hip replacement is not effective.

During the more than 15 years we have been offering sports rehabilitation for patients with orthopedic diseases—currently about 500 patients are participating every week—, we have found that sports rehabilitation is effective in improving motor function and reducing pain (2). Therefore, these patients also experience a more active lifestyle, stronger social inclusion, and improved wellbeing in the long term. Further studies support the conclusion that especially previously less active patients could benefit from sports rehabilitation (3).

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In Reply:

Sports rehabilitation (SR) is a measure to support reintegration and self-help which is financed by the healthcare payers. The primary goal of sports rehabilitation is to strengthen people’s own responsibility for their health and to motivate them to engage in long-term independent exercise training by continuing with sporting activities, e.g. in the existing group or in another sports therapy offerings at their own expense (1).

We consider SR as complementary rather than as an alternative to rehabilitation programs and physiotherapy. Therefore, as described in the study protocol, all patients had completed a prior outpatient or inpatient rehabilitation program. We did not discuss the effective-

ness and content of rehabilitation programs—a point criticized by Dr. Brons—, because it was not part of our research question.

As Dr. Krakor (2, 3), we found in our daily routine that the benefits of sports rehabilitation for patients who underwent total hip replacement surgery not only included improved motor function and a more active lifestyle, but also social integration in the group. Our motivation to conduct this study was to prove these effects in a long-term, controlled, prospective and randomized trial, as there were no comparable studies available in the literature.

Even though we did not succeed in demonstrating a significant improvement in the primary endpoint—strength capacity of the muscles surrounding the hip joint—one year after hip replacement surgery, the study did show positive trends for its secondary endpoints. For example, health-related quality of life was found significantly improved 6 months after surgery and the WOMAC pain score one year after surgery was found to be significantly reduced. We are aware of the methodological limitations of our study and have discussed them in detail in our article. The protocol violations were not taken into consideration—a point criticized by Dr. Krakor—, because our analysis was based on an intention-to-treat approach in order to reflect the reality of care provision.

In summary, we see a need for further prospective controlled studies to increase the robustness of our results or disprove our findings. On the other hand, there seems to be a need to optimize the frequency of training sessions, especially when taking the

current recommendations on the required level of physical exercising into account (4). For example, further studies could evaluate whether a second weekly training unit—alternatively an additional home exercise program—augments these effects or how sports rehabilitation influences the long-term everyday activity of patients beyond the first postoperative year.

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