

CV-Biography Catharina Parai

Catharina Parai became an orthopaedic surgeon at the Central Hospital in Karlstad in 2012. She did her training in spine surgery at the GHP Spine Center in Gothenburg, where she worked until 2021, when she was employed as a senior consultant in spine surgery at the Sahlgrenska University Hospital in Gothenburg. She defended her thesis on the reliability and interpretability of patient-reported outcome measures in degenerative lumbar spine conditions in 2020. One of the papers was awarded the ISSLS prize in clinical science and another paper the Max Aebi Award. She has been a member of the Swespine steering committee since 2016. She currently leads a research group that studies the usability of big data-based prediction models in clinical everyday practice.

Abstract

Does the strategic use of Big Data alter outcomes in degenerative spine surgery? A multicenter clinical trial testing the Swespine Dialogue Support

Background

Patients surgically treated for spinal degenerative conditions report significant improvement in less than two out of three cases. Advancements in computational power and the utility of large datasets have enabled the development of prognostic prediction models within spine surgery. This ongoing trial investigates if the use of the postoperative prediction model, the Dialogue Support, can alter patient-reported outcome and satisfaction compared to current practice.

Methods

In this multicenter clinical trial, patients referred to a spine clinic with cervical radiculopathy or lumbar spinal stenosis are screened for eligibility. Participants are assessed at and at 12 months follow-up. The Dialogue Support will be used on all participants, and they will thereafter be placed into either a surgical or a non-surgical treatment arm, depending on the decision made between patient and surgeon. Both the surgical and the non-surgical group will be compared to a retrospective matched control group retrieved from the Swespine register, on which the Dialogue Support has not been used.

The primary outcome measure is Global Assessment regarding leg/arm pain in the surgical treatment group. Secondary outcome measures include patient satisfaction, Oswestry Disability Index (ODI), EQ-5D, and Numeric Rating Scales (NRS) for pain. In the non-surgical treatment group primary outcome measures are EQ-5D and mortality, as part of a selection bias analysis.

Discussion

The findings of this study may provide evidence on whether the use of an advanced digital decision tool can alter patient-reported outcomes after surgery.