# The assessment of quality of life in a trial on lightweight mesh fixation with fibrin sealant in transabdominal preperitoneal hernia repair.

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## Abstract:

BACKGROUND: Chronic pain is a major concern in open and laparoscopic hernia repair. Study groups have adopted a variety of tools to assess postoperative (postOP) pain and quality of life (QoL). Unfortunately, modifications of existing tests and self-designed questionnaires are common, yielding unvalidated results and making comparison of data difficult. The aim of this study was to assess the QoL in transabdominal preperitoneal mesh repair (TAPP) with fibrin sealant (FS) for lightweight mesh fixation, applying the standardised Short Form 36 (SF36) questionnaire in its unmodified design. The SF36 has already been validated and implemented in a large number of studies. In this trial the physical-health-component summary measure (PHM), summarising the physical health-related scales, served as the primary outcome parameter.

MATERIALS AND METHODS: After informed written consent was obtained, TAPP with fibrin mesh sealing was performed in 11 non-selected consecutive patients by a single surgeon. A direct control group (e.g. TAPP with staples) was not enrolled, because a favourable change in the QoL in patients subjected to the mesh sealing approach was the tested hypothesis and not the comparison of techniques. The macroporous mesh (TI-Mesh, GfE, Germany) was fixed with 1 ml of FS (FS, Tisseel, Tissucol, Baxter Biosciences, Austria), and the QoL and pain were assessed preoperatively and 1 year postOP using the SF36 survey and the visual analogue score (VAS).

RESULTS: After 12 months, recurrences or complications were observed. The analysis of the unmodifed SF36 revealed a highly significant improvement in the PHM, based on significant changes of all physical-health-related scales. The scale 'social functioning' (SOCIAL), which belongs to the mental-health-related scale, had also significantly improved. The VAS was significantly reduced after 1 year.

CONCLUSIONS: Despite a small number of patients (n = 11), a strikingly significant improvement in physical health and reduction of pain was detected with the unmodified SF36 and the VAS 1 year after TAPP repair with fibrin-sealed lightweight meshes. We suggest the use of the unmodified SF36 for QoL in hernia repair in order to assess all aspects of recovery (physical and mental) and to facilitate comparison of data.