

## **A Majority of Obese Patients are Satisfied after Decompression Due to Central Spinal Stenosis**

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**Introduction:** It is largely unknown if increasing obesity is associated with inferior outcome after laminectomy due to central lumbar spinal stenosis (CLSS).

**Material and Methods:** We retrieved pre- and one-year postoperative data from the National Quality Registry for Spine Surgery regarding patients aged 50 who underwent decompression due to CLSS 2005-2018. 4069 patients were normal-weighted, 7044 over-weighted, 3377 had class I obesity, 577 class II obesity, and 94 class III obesity ("morbid obesity"). Data included patient satisfaction, leg-pain (National Rating Scale; NRS; rating 0-10), disability (Oswestry Disability Index; ODI; rating 0-100), and complications.

**Results:** One-year postoperatively the frequency of satisfied patients was 69% in normal-weighted, 67% in over-weighted and 62% in obese patients (class I-III aggregated) ( $p<0.001$ ) [62%, 60%, 57% in the three obesity groups I-III, respectively ( $p=0.65$ )]. NRS leg pain improved in normal-weighted by 3.5 (95%CI 3.4-3.6), over-weighted by 3.2 (3.1-3.2) and obese by 2.6 (2.5-2.7) ( $p<0.001$ ) [2.8 (2.7-2.9), 2.5 (2.2-2.7) and 2.6 (2.0-3.2) in obese class I-III, respectively ( $p<0.001$ )]. ODI improved in normal-weighted by 19 (19-20), over-weighted by 17 (17-18) and obese by 14 (13-15) ( $p<0.001$ ) [16 (15-18), 14 (13-16) and 14 (11-18) in obese class I-III, respectively ( $p<0.001$ )]. 8.1% normal-weighted, 7.0% over-weighted and 8.1% obese suffered complications ( $p=0.04$ ) [8.1%, 7.0%, 17.0% among obese class I-III, respectively ( $p<0.01$ )].

**Conclusions:** Laminectomy due to CLSS seems also in obese patients result in a reduction in morbidity, however inferior to that for normal-weighted patients; morbidly obese patients also have more complications. A majority of obese patients are satisfied after surgery.