# Lumbar discectomy in obesity

Obese patients derive significant benefit from lumbar discectomy that it is similar to the benefit experienced by non-obese patients. Obese individuals may achieve excellent results from discectomy and these patients should not be refused surgery on the basis of BMI alone [1].

Obesity has an impact on outcome in lumbar discectomy. Obese patients had higher scores in BDI and ODI indicating mild mood disturbances and moderate functional disability. According to ICF, functional disability of obese patients was observed to some extent in all activity domains. Obese patients will be more frequently present for disc surgery and increased morbidity risk must be recognized. We need a strategy to rehabilitate and activate obese patients pre- and postoperatively [2].

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BMI positively correlates with VAS back pain, Roland Morris Disability Questionnaire, and Oswestry Disability Index (ODI). Standardized Timed Up and Go (TUG) test scores reflect the patient's degree of objective functional impairment (OFI) well, irrespective of BMI. The TUG test appears to be a good means to estimate functional impairment in populations with a high prevalence of obesity [3].

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Spinal surgery in obese patients often poses challenges not only to proper patient positioning, but also to obtaining adequate surgical exposure and frequently leads to increased complexity of the procedure and risk for the patient. The excessive subcutaneous fat deposition in obese patients group can be daunting with regard to the surgical approach to the bony structures of the spine [4].

The general rule has been to increase the length of the incision to allow adequate visualization at depth [5].

The additional tissue injury associated with an increase in incision length and depth is likely a factor in the operative site morbidity [6].

Therefore, the operation has been associated with increased operation time, blood loss, wound infection, and other many perioperative complications [7].

Although the operation time and estimated blood loss (EBL) was significantly increased in obesity, there were no differences in surgical outcomes including postoperative hospital day, recurrent disc herniation, intraoperative durotomy, and postoperative epidural steroid injection. Based on the results of this study, Too et al.,suggested that higher BMI are not likely to encounter heightened morbidity in lumbar microdiscectomy [8].

## Case series

Brennan et al. conducted a prospective questionnaire-based study of QoL and symptom control in 120 patients with postal follow-up at 3 and 12 months after lumbar disc surgery. This study was conducted in two United Kingdom regional neurosurgical units, with ethical approval from the North of Scotland Research Ethics Service (09/S0801/7).

120 patients were recruited; 37 (34.5%) were obese. Follow up was 71% at 3 months and 57% at 12

months. At recruitment, both obese and non-obese patient groups had similar functional status and pain scores. At 3 and 12 months, non-obese and obese patients reported similar and significant benefits from surgery (e.g. 12 month SF-36 80.5 vs. 68.8, respectively). In non-obese and obese patients, time to return to work was 47.5 days and 53.8 days, respectively, (p = .345). After 12 months all QoL scores were significantly improved from pre-operative levels in both groups.

Obese patients derive significant benefit from lumbar discectomy that it is similar to the benefit experienced by non-obese patients. Obese individuals may achieve excellent results from discectomy and these patients should not be refused surgery on the basis of BMI alone [9].

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