

Back pain resulting from lumbar disc herniation (bulging or slipped disc in the lower back) is common. Both women and men are at risk of developing lumbar disc herniation with sciatica (pain radiating down the leg) at between 30 and 50 years of age, and the risk is slightly higher for men. Most patients improve spontaneously within a few months, and conservative treatment will often suffice. Surgical treatment may be an option for patients with persistent sciatic pain that impairs function. In rare cases, emergency surgery within 24 hours may be required to prevent permanent nerve damage. The majority of patients return to work following their operations and are satisfied with the outcome.

Background

Lumbar disc herniation is defined by a primary or secondary diagnosis of M51.1, M51.2, M51.3, M51.8 or M51.9 (ICD-10). Surgical treatment is defined by a diagnosis of lumbar disc herniation in combination with one or more of the procedure codes ABC07, ABC16, ABC26, ABC36, ABC40, ABC56, NAG34, NAG36, NAG44, NAG46, NAG54, NAG56, NAG64, NAG66, NAG74, NAG76 (NCSP). Patients aged 18 years or older are included in the sample, except in the figure that shows gender and age distribution of patients of all ages who have been operated.

Each year there are an average 3,200 patients who receive surgical treatment for lumbar disc herniation. This accounts for 27 % of all patients with the condition in contact with the specialist health service.



Total number of operations for lumbar disc herniation, in the period 2012–2016, for Norway as a whole. The patients have been broken down by gender and age group.



Surgery rate: Number of operations for lumbar disc herniation per 100,000 population (18 years and older), broken down by hospital referral area. Rates have been adjusted for gender and age. Bars show average value per year for the period 2012–2016, broken down by where the patients had surgery.

Results

Surgical treatment for lumbar disc herniation was more than twice as common in Nord-Trøndelag hospital referral area as in the Telemark area.

Percentage of patients operated was highest in St. Olavs and Stavanger (36 %) areas, and lowest in the Telemark (14 %) area. The surgery rate is relatively stable for Norway as a whole, but seems to increase in some hospital referral areas.

Most patients are operated on at public hospitals (90 %). In some areas nearly all patients receive their surgical treatment at a public hospital in an other hospital referral area (up to 93 %), and to a lesser extent at private hospitals under public funding contracts (up to 28 %).



Surgery rate: Number of operations for lumbar disc herniation per 100,000 population (18 years and older), broken down by hospital referral area and for Norway as a whole. Bars show the average value per year (2012–2016), and the dots represent rates for each year. Rates have been adjusted for gender and age.

Comments

There is relatively high variation in surgical treatment for lumbar disc herniation. Nord-Trøndelag hospital referral area stands out with a particularly high surgery rate. We consider the variation in surgery rates unwarranted because there is no known corresponding geographical variation in prevalence of the condition.

There was clear variation between areas, both in the number of patients with lumbar disc herniation per 100,000 population who were in contact with the specialist health service and in the percentage of patients operated on. We believe that this could reflect differences in practice in terms of how hospitals handle referrals, but it could also reflect an absence of strong guidelines.