

LUMBAR SPINAL FUSION SURGERY: MEDICAL, ETHICAL AND ECONOMICAL ASPECTS

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Aim: The intention of this paper is to analyze literature data regarding outcomes of lumbar spinal fusion surgeries for degenerative disease. In the last two decades expanded number of instrumented spinal surgeries for degenerative disease was noticed.

Methods: We completed and analyzed data in terms of indications for lumbar spinal fusion surgery, epidemiology, risks, complication rate as well as economical aspects of those surgeries. Results from reviewed papers as well as experience from our institution were obtained.

Results: The literature results showed four times expanded number of prescribed lumbar spine MRI in the period from 1994 to 2014 and four to five times higher number of pain treatment procedures. Number of spinal fusion surgeries is expanded five times in the last decade of twentieth century. In the same time results suggested that number of disabled workers because of back pain rose by 10 percent. Paradoxically reoperation rate after spinal fusion surgery is higher than for surgery without instrumentation or bony fusion alone. Surgery with instrumentation was associated with doubling risk of complication, increased rate of transfusion by factor six and two times higher mortality rate in six postoperative weeks.

Conclusion: Prescribing more images, opioids, injections and surgeries is not likely to improve outcome in patient with chronic back pain. The emphasis of research efforts should be shifted from "how to perform fusion" to "who should undergo fusion surgery". The introduction of minimally invasive spinal procedures including fusion procedures should be an acceptable option in well selected cases.