



Editorial

COVID-19 Provides An Opportunity to Reassess How Frequent and How Extensive Elective Spine Surgery Should Be

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EDITORIAL

With the advent of COVID-19, hospitals across the country have largely stopped “elective surgery”, including elective spine surgery. We encourage everyone to adhere to the recommendations to only perform urgent/emergent spine operations, which is defined, for example, as those reflecting pathology likely to result in quadriplegia or paraplegia within a three month period. This COVID-19 pandemic also affords us the unique opportunity to assess whether some elective spine surgery can be avoided or, when surgery is necessary, whether other less extensive procedures can be performed.

Reported Frequencies of Unnecessary Spine Surgery

A number of studies have documented unnecessary spine surgery, although the reported frequencies vary. In 2012, Gamache found that 69 (44.5%) of 155 second opinion patients that he had seen over a 14-month period were told by outside spine surgeons that they needed surgery, which he considered unnecessary.^[3] In 2013, Epstein evaluated 183 patients who were told by their first-opinion spine surgeons that they needed spine surgery.^[2] In her opinion, 60.7% required no surgery, 33.3% were about to undergo the wrong or exceedingly extensive operations, while only 6% were offered the “right” operation. In a 2014 article entitled “Necessary or unnecessary? a critical glance on spine surgery”, Raabe *et al.* noted: “Patients with complaints and symptoms caused by spinal degenerative diseases demonstrate a high rate of spontaneous improvement.”^[5] We can debate the degree to which unnecessary surgery occurs, but the fact remains, it does exist.

Greater Risks of Too Extensive or Insufficiently Extensive Minimally Invasive Spine Surgery

Patients are increasingly being offered too extensive or insufficiently extensive minimally invasive spine operations that increase perioperative risks.^[1,2,6] In Transfeldt *et al.*'s study (2010) the risks/complications increased for more extensive spine operations; they noted a 10% complication rate for decompressive laminectomies alone, a 40% rate for decompressions with limited fusion (1-2 level), and a 56% rate for multilevel full-curve fusions.^[6] On the other hand, insufficiently extensive minimally invasive spine procedures, by providing inadequate exposure, also increased perioperative risks: more neurological injuries/deficits, spinal fluid leaks, residual pathology, and/or higher infection rates.^[1,2] Further, it is well documented that instrumented spinal fusions

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have markedly increased, particularly in patients age 65 and older.^[1,4] In 2010, Marawar *et al.*, utilizing The National Hospital Discharge Survey from 1990 to 2004, observed a 28-fold increase in anterior discectomy and fusion (ADF) in patients over age 65.^[4] Watt's observed in 2014 "...a 15-fold increase in complex spinal fusions for spinal stenosis ... between 2002 and 2007."^[7] Again, there is little doubt that some patients are being offered too extensive or insufficiently extensive minimally invasive spine operations that increase perioperative risks.

CONCLUSION

With COVID-19, the vast majority of spinal surgeons will not be performing elective spinal surgery to avoid overwhelming our hospitals, and consuming vital resources. As a consequence, COVID-19 provides us with the unique opportunity to reassess whether, and to what extent, elective spine surgery should be performed in the future.

Declaration of patient consent

Patient's consent not required as there are no patients in this study.

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Conflicts of interest

There are no conflicts of interest.

Disclaimer

The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of the Journal or its management.

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