Editorial

Preface on minimally invasive techniques in spine surgery and trend toward ambulatory surgery

The healthcare climate has undergone a significant shift over the last ten years, with a push towards value of care. This has required physicians to adapt to improve the perioperative recovery of patients undergoing spine surgery. This includes smaller incisions, less blood loss, with earlier mobility to allow for surgeries to be performed in the ambulatory setting (1).

However, the ability to perform spine surgery safety in the outpatient setting is not without its challenges. Over the course of the last 10 years, minimally invasive options have allowed the ability to perform spinal fusions with little blood and damage to the surrounding soft tissue (2). Utilizing techniques such as lateral interbody fusions we can perform primary or adjacent level disease of the spine with the ability of the patient to go home the same day. In addition, endoscopic techniques have evolved that allow for previously larger morbid surgeries to be done outpatient with easier and faster recoveries for patients (3-5). These techniques allow for preservation of the paraspinal musculature, therefore decreasing pain, blood loss, and hospital stay (1-3).

In addition to surgical techniques, patient selection is also essential in determining who would benefit from minimally invasive techniques and who can be performed in an outpatient setting. In this series, we present data on machine learning as well as patient preoperative perception. These factors can be critical in establishing criteria for patients moving to the ambulatory surgery setting.

The papers in this series also discuss the evolution of endoscopic surgery, the utilization of machine learning, robotic surgery, and use of synthetic bone grafts to reduce donor site morbidity. These tools and more have all pushed toward the evolution of safer, cost effective surgery in the outpatient setting.

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