Identifying the High Risk Fusion Patient: The Enigmatic Changes in Healthcare and Spinal Surgery.

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Introduction

Ascribed to the accepted and published circumstances that effectuate fusion rates, the growing prevalence of the obesity, poor bone matrix and burgeoning chronic opioid use, currently burden the diminishing health of the complex spine patient.

In this paper, the authors discuss current medical illnesses surrounding lumbar fusion failures, behaviors affecting surgical decisions, and the employed measures to effectuate the potential mishaps within this populace.

The societal run-up of a higher acuity patient populace has resulted in larger numbers of these patients being directed towards willing providers within Complex Spinal Clinics. The greater concentration of these patients allows for a certain educative process and translational vigilance and application to the special needs of these individuals.

Methods

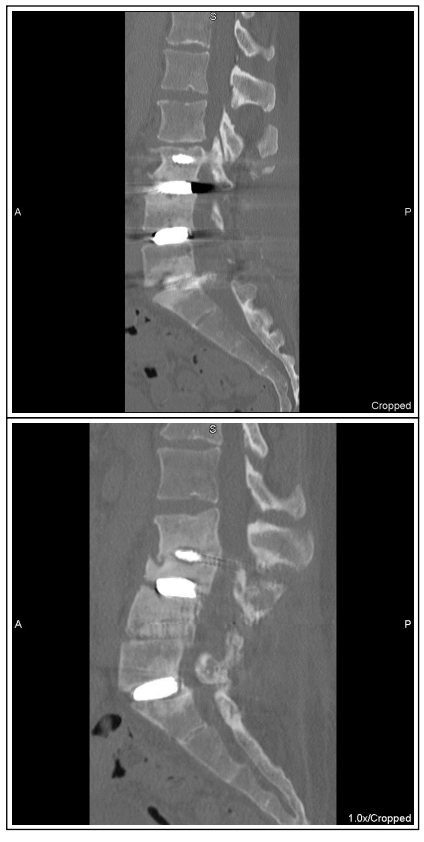
Observational, retrospective case review was performed on ten failed lumbar fusion cases. Exacting information on patient history as it related to the post-operative period, medication usage, causative events, as well as deviations from these treatment recommendations are cited. The denominator for this composition was the two hundred and forty lumbar fusion cases (n=240) completed over a two-year period. Pseudoarthrosis rates as it normally occurs for this risk-adjusted populace are also presented. Intraoperative and follow-up x-rays are provided for discussed cases.

Failure of Spinal Fusion Factors

- Drug dependency
- Infection
- Smoking
- Osteoporosis
- Diabetes Mellitus
- Obesity
- Chronic Opioid dependency
- Autoimmune Disease
- Post-Operative Trauma
- Non-Compliance

Illustrative Case; Sagittal Lumbar CT

Summer 2013 versus Summer 2015



Conclusion

The annotated and quoted benchmarks of failed complex spinal surgery are challenged within the disciplines of healthcare and the elevating acuity of patient management. The burgeoning prevalence of obesity and chronic opioid use, has registered an increased incidence in failed fusion rates and the number of patient ground level falls. Denominator dependent value for this increase incidence is based on a five-year combined observational-retrospective review. The uptick in failed fusion rates as it relates to one of the listed diagnosis has been observed.

Learning Objectives

Identifying High Risk Patients
Bone Stimulators

Results

Complex Spinal Practices, both in academic or private practice setting, subserve the patient populace of failed back syndromes and previously treated conditions. The 'higher acuity' label of these patients is demonstrated by the ongoing treatment of chronic disease processes or and an increased assigned ASA score. The vast majority of these patients' health habits (n=10) had a deleteriously effect on the surgical outcome when a mishap befell the recovery.

References

1.http://medicalxpress.com/news/2013-09-sharp-opioid-drugs-non-cancer-pain.html