•BACKGROUND

Obesity is a major health problem in patients suffering from debilitating back pain that contributes to post-operative complications.

Minimally invasive treatment (TLIF) can provide benefits by proving smaller incisions, reduced tissue destruction, less post operative pain, early ambulation, and less hospital stay.

•OBJECTIVE

To assess the clinical outcomes and efficacy of minimally invasive transforaminal lumbar interbody fusion (TLIF) in obese patients with debilitating back pain from spondylolisthesis.

•METHODS

Eighty-five patients, 55(65%) female, 30(35%) male.

Average age 65 years old, with BMI greater than 30 kg/m2 with grade I or II spondylolisthesis operated by TLIF were retrospectively reviewed between November 2011 to April 2017.

These patients were categorized into three obesity categories:

BMI 30.1–34.9 kg/m2 (Class I),
35.0–39.9 kg/m2 (Class II),
and = 40.0 kg/m2 (Class III).

Oswestry disability index, Pain analogue scale, operative time, estimated blood loss (EBL), post-operative complications and hospital stay (LOS) and fusion rates were analyzed.

•RESULTS

•Average follow-up time was 2.2 years.
- Obesity categories:
  - 40 cases in class BMI I,
  - 29 cases in class BMI II,
  - 16 cases in class BMI III

- Having chronic back pain symptoms averaging 5 years range 1 to 30 years.

•All patients underwent single level TLIF at the L3-4(n= 66), L4-5(n= 58), or L5-S1(n=21) level.

•Mean OR time was 199 min±45 min.
•Mean EBL TIME was 144 ml±55 ml.
•Mean LOS was 4.4 days±2.1 days.

•VAS decreased from 6.55 pre-op to 2.8 at 3 months postoperative and 3.4 at one year, ODI decreased from 44.7 pre-op to 27.7 at 3 months post-op and 30.5 at one year.

•Complications

* Complications rate was 4.9%.
* Fusion rate was > 93% at 1 year follow-up.
* Re-operation rates was 1.1% for adjacent level pathology.

Minimally Invasive Transforaminal Lumbar Interbody Fusion (TLIF) case

CONCLUSIONS:

Obese patients with debilitating back pain from lumbar spondylolisthesis can be safely and effectively managed with minimally invasive TLIF to reduce complications, improve fusion rates, and provide excellent clinical outcomes.

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