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**Percuteneous Laser Disc Decompression by 980nm Biolitec Laser for Herniated Lumber Disks**

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**Aim & objective:** The objective of this study to illustrate the use of PLDD, a minimally invasive procedure for contained disc herniation, which has been developed to treat symptomatic patient (failed conservative methods).

**Background data:** Percutaneous laserdisc decompression (PLDD) is a procedure in which herniated intervertebral discs are treated by reduction of intradiscal pressure through laser energy. This is introduced by a needle inserted into the nucleus pulposus under local anesthesia and fluoroscopic monitoring. The small volume of nucleus vaporized results in sharp fall of intradiscal pressure, with consequent migration of the nucleus away from the nerve root or thecal sac, temporary denaturation of portion of nucleus protein resulting in reducing capacity to pressurize annulus . First proposed by Dr. Deniel choy, Columbia University, New York, USA. In 1986. thereafter, million of patients operated with 89% success rate. US-FDA and AMA had approved the PLDD.

**Materials and methods:** A nonrandomized, nonblinded study is conducted in male and female patients with symptomatic, image documented intervertebral herniated discs in 172 patients-174 discs, using PLDD only modality in 162 cases and PLDD with epidural lavage in 10 patients. They were observed over a period of 11/2 month to 5 year. Treatments were carried out under CT/Fluoroscopy guidance/Cathlab with local anesthesia and day care or single day indoor stay.

**Results:** At follow up, back pain was eliminated or reduced in 80% of the patients. Regarding sensorimotor impairment, PLDD did have a positive effect on 90% of the patients. (Modified Mac nab criteria) All patients noticed relief in radicular symptoms. In the majority of patients, the number of sick days and consumption of pain medication was reduced.

**Conclusion:** From our clinical results, we conclude that image-guided PLDD is an effective and secure method to treat contained herniated lumber discs. Advantages of the procedure include the minimally invasive approach and the low complication rate.