

MULTILEVEL LUMBAR DISC DEGENERATION IN YOUNG  
PATIENTS: DISEASE OF THREE OR MORE LEVELS.  
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Twenty-three patients ranging from age 15 to 29 presented with lumbar disc degeneration and/or herniation of three or more levels. These patients were associated with obesity, height of 6 feet or more, strong family history, pre-existing pathologies, congenital abnormalities, endplate defects and/or excessive cumulative work activities or sports involving heavy axial loading, repetitive bending or rotation of the lumbar spine. There were 14 males and 9 females. Of the five teenagers, three were 6 feet or more and one weighed 200 pounds since the age of 12. Ten patients ranged from 6 feet to 6 feet 6 inches in height. Six patients were markedly overweight. A high percentage of patients were involved in unusually heavy activities such as rodeo riding, competitive rowing, weightlifting, rugby, etc. Co-existing pathologies such as endplate defects, congenital fusion, spondylolisthesis, retrolisthesis, spondyloepiphyseal dysplasia were also found in addition to the multilevel disc degeneration.

Seventeen patients had 3-level involvement. Five patients had 4-level involvement and one had 5-level disease. All cases were documented on MRI, CT scan, myelogram, and/or discogram. Seventeen patients had significant disc herniations, 7 of which were extruded.

Initially all patients were treated conservatively with rest, back school, physical therapy training and conditioning program. Anti-inflammatory medications, epidural injections, and braces were used in some. When aggressive conservative treatments failed in patients with significant neurological deficit and/or severe leg pain, surgical decompression was directed to the cause of the neurological deficit or to the origin of pain. Selective nerve root blocks, indwelling epidural blocks, ENG and/or discograms were performed to localize the origin of pain.

Two underwent chemonucleolysis with one improved. Two underwent percutaneous nucleotomies and one improved. Four underwent surgical decompressions and discectomies with three improved.

In five patients, four of whom failed initial procedures, fusions were performed and four improved.

Conservative treatments including back school, training in good body mechanics, conditioning program and termination of heavy work or athletic activities were useful even in patients requiring surgery. For young patients with multilevel disc disease, non-operative management is indicated unless there is significant neurological deficit or severe pain not responding to aggressive conservative treatments.