

## Microscopic Features and Age Related Changes Of The Lumbar Intervertebral Disc Cells

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Intervertebral disc degeneration is an important cause of low backache. The cartilage cells of the disc play an important role in the maintenance of the structure of the disc. The disc degeneration increases with the age of the subject.

**Objective:** To describe the histology of cartilage cells in the intervertebral disc and determine the association between the intervertebral disc cell density and the age of the subject.

**Methodology:** A descriptive cross sectional study was done at the Faculty of Medicine University of Kelaniya, Ragama on post mortem specimens of fourth lumbar intervertebral discs. Histological sections were prepared from these discs and stained with haematoxylin and eosin. To count the cell density a graticule and a light microscope was used. The results were analysed using the EPI6 statistical package.

**Results:** 31 specimens studied. 24 (77%) were from males. Age range 21-96 years. Mean (SD) age was 46.4 (19.1) yrs. There were many cartilage cells of different shapes. Elongated and the spherical shapes were the commonest. There was a significant negative correlation ( $r = -0.45$ ,  $p < 0.05$ ) between the mean cell density and the age of the subject.

**Conclusion:** There was a significant reduction in the number of cartilage cells in the disc with the increase in age.