

CORRELATION ANALYSIS OF PITUITARY LUTEINIZING AND SOMATOTROPIC CELLS IN MALE CADAVERS DURING AGING

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This manuscript focused on examining the correlation between immunoreactive luteinizing (LH) and immunoreactive somatotropic (GH) cells in men during ageing. Anti-LH and anti-GH are the antibodies used to label the mentioned pituitary cells in 14 male cadavers. The cells identified in this way were analyzed with ImageJ. The obtained results were statistically analyzed using the SPSS statistical software package. The results of the morphometric analysis showed that during ageing, the surface area of LH and GH cells increased significantly ($p < 0.05$), and that the nuclear-cytoplasmic ratio decreased, and that the obtained changes were particularly significant ($p < 0.05$) in elderly cadavers over 70 years of age. These results showed that after the mentioned period, there was a hypertrophy of the examined cells. The resulting changes were of a functional nature and showed that cadavers after the age of 70 have a significantly reduced hormonal capacity. Based on this, it can be concluded that the investigated morphometric parameters of gonadotropic LH and GH cells correlate significantly, which indicates the parallel occurrence of adaptation and compensatory mechanisms in these cells in men during ageing.

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