Effect of chronic alcoholism on neuronal nuclear size and neuronal population in the mammillary body and the anterior thalamic complex of man

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SUMMARY. The effect of chronic alcoholism on neuronal nuclear size and neuronal population of two memory-related diencephalic centres, the mammillary body and the anterior thalamic complex, has been examined in 24 chronic male alcoholics and 22 age-matched male controls. Cases were subdivided into three age groups (30-44 years, 45-59 years and 60-75 years). The results showed a significant reduction in both neuronal numbers and nuclear size in alcoholics compared to controls. Differences were especially high in the youngest alcoholics. The intensity of liver damage (steatosis vs. cirrhosis) did not have any significant effect. Moreover, an age-related decrease of neuronal number and karyometry was seen in controls but not in alcoholics. Our results suggest that chronic alcoholism accelerates the rate of neuronal loss in the mammillary body and anterior thalamic complex to a degree equivalent to aging. Likewise, chronic alcoholism impairs the compensatory increase in neuronal nuclei area seen in normal aging in these same structures. Our findings show that medial diencephalic memory centres are damaged in chronic alcoholism, which may contribute to the clinical symptomatology of these persons.

Key words

Alcoholism, Human, Mammillary body, Thalamic complex, Neurones

Diagnosis of *Brucella ovis* infection of rams with an ELISA using protein G as conjugate

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SUMMARY. The complement fixation and gel diffusion tests for *Brucella ovis* ram epididymitis were compared with an indirect ELISA using antigens from *B ovis* extracted in hot saline, rough *B ovis* lipopolysaccharide or a cytosolic fraction of rough *B melitensis* 115, and commercial anti-IgG (heavy and light chain specificity) or protein G conjugates. None of the antigens and conjugates used in the ELISA gave better results in terms of sensitivity and specificity than the complement fixation or the gel diffusion tests with the sera of 41 rams naturally infected with *B ovis*. 17 rams inoculated conjunctivally with *B ovis* and 53 Brucella-free rams. The protein G conjugate significantly reduced the background reactivity of the sera from the Brucella-free rams but did not improve the sensitivity of the ELISA with the anti-IgG conjugate.