MEASUREMENT OF NEGRI BODIES USING IMAGE ANALYSER[1]

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In this study, an attempt was made to measure the size of Negri bodies from the brain specimens in the Department of Veterinary Pathology, Madras Veterinary College.

Materials and Methods

Impression smears from five positive rabies cases each from canine, bovine and caprine were taken from hippocampus were stained using William's modification of van Gieson's stain. From each case ten Negri bodies were measured in random using Carl Zeiss Image Analyser KS 300 software. Thus, 50 observations were made for each species.

Results and Discussion

The diameter of Negri bodies in canine, bovine and caprine were found to be within the range of 2.71 to 14.37µm, 3.17 to 22.25µm and 5.23 to 24.76µm respectively. This was in agreement with Tierkel and Atanasiu (1996) who stated that it was generally found to be between 0.24 to 27.0µm. Similar findings were also made by Velleca and Forrester (1981) and Jubb and Huxtable (1993). The mean ± SE values of Negri bodies of canine, bovine and caprine were 7.58±0.75µm, 8.88±1.09µm and 12.41±1.36µm respectively. The statistical analysis showed that the size of Negri bodies differed significantly ($P<0.05$) between species.

References

Jubb, K.V.C. and Huxtable, C.R. (1993)... The Nervous System. In : R.V.F. Jubb, P.C. Kennedy and N. Palmer. Eds. Pathology of Domestic Animals. Vol 1. 4th Ed. p. 403.

Tierkel, E.S. and Atanasiu, P. (1996)... Rapid microscopic examination for Negri bodies and preparation of specimens for biological test. In:F.X. Meslin, M.M. Kaplan and H. Koprowski. Eds. Laboratory Techniques in Rabies. 4th Ed. WHO, Geneva. p. 55.

Vellecea, W.M. and Forrester, F.T. (1981)... Laboratory Methods for Detecting Rabies. Atlanta. US Department of Health and Human Services, Public Health Services, Centre for Disease Control.

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