99. IMMUNOPATHOLOGICAL STUDY OF CNS LESIONS IN NATURALLY OCCURRING CASES OF OVINE VISNA

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Introduction

The objective of this work was to define the pathology of ovine Visna and its relationship to the local immune response.

Materials and methods

A systematic histopathological study of the central nervous system (CNS) of twenty sheep (15 of them with neurological signs), was performed. Immunohistochemistry was carried out using antibodies raised against CD3, CD4, CD8, CD79, and γδ.

Results

All animals had different CNS lesions which were characteristic for Visna Type 1. These were moderate to severe lymphocytic infiltration of the choroid plexus and meninges, with (1b) or without (1a) parenchymal injury. In the Type 2 variant, there were severe lesions in the parenchyma with large numbers of lymphocytes and areas of malacia (2a), or predominantly macrophages. Type 1a and 2a lesions had a predominance of CD4+ lymphocytes, mainly forming perivascular cuffs. Conversely, macrophages, CD8+ and B lymphocytes predominated in type 1b and 2b lesions.

Conclusion

These features could be related to the individual immunological response and resistance to disease. The proposed classification could be useful in future studies of ovine Visna.