COMPARISON OF THE PATHOLOGY OBSERVED IN LAMBS AND ADULT SHEEP EXPERIMENTALLY INFECTED WITH *MYCOBACTERIUM AVIUM* SUBSP. PARATUBERCULOSIS

Delgado Laetitia, Muñoz María, García-Pariente Carlos, Fuertes Miguel, Benavides Julio, González Jorge, Ferreras MªCarmen, Pérez Valentín, García Marín JFrancisco

IGM-CSIC-ULE, Department of Animal Health, University of León, Spain,
e-mail: jfgarm@unileon.es

Introduction
The objective of this study was to evaluate the susceptibility of adult sheep to Mycobacterium avium subsp. paratuberculosis (Map) infection using different doses of Map.

Materials and methods
24 lambs and 22 adult sheep were orally infected with two doses of Map (1010 and 103 CFU). Fourteen animals remained as uninfected controls. The animals were necropsied at 120 and 210 days post-infection. Numbers of granulomas were counted and the severity of lesions was evaluated in samples of intestine and associated lymphoid tissue. Peripheral cellular immune response was assessed fortnightly.

Results
No gross lesions were observed in any of the animals. Microscopic lesions of paratuberculosis were detected only in the high dose-infected groups. Adult sheep showed small, demarcated focal granulomas restricted to areas of lymphoid tissue. Lesions were larger, more numerous and extended to the lamina propria in the lambs. The peripheral IFN-γ response appeared earlier in the adult sheep than in the lambs.

Conclusions
These results indicate the possibility of infection and development of characteristic lesions of paratuberculosis in adult sheep. Adult sheep seem better able to control the progression of the disease than lambs.