

**P72 - ASSESSMENT OF DIFFERENT MONOCLONAL ANTIBODIES FOR THE IMMUNOHISTOCHEMICAL DETECTION OF *Mycobacterium avium* subsp *paratuberculosis* IN TISSUE SECTIONS**

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*Introduction:* The use of immunohistochemical (IHC) techniques in the detection of *Mycobacterium avium* subsp *paratuberculosis* (Map) is hampered by the lack of specific and sensitive antibodies. The aim of this study is to test different monoclonal antibodies (MoAb) produced in the frame of an European grant, in tissue sections showing different paratuberculosis lesions.

*Materials and methods:* Fourteen MoAb (10 purified and 4 culture supernatants) were assessed using Envision IHC technique, in samples from experimentally infected lambs showing focal lesions negative to ZN, multifocal forms with small amounts of bacilli and diffuse multibacillary lesions. In addition, two polyclonal Ab against Map, previously tested, were employed. An avian intestinal sample infected with *Mycobacterium avium* subsp *avium* (Maa) was also used.

*Results:* Only the four supernatant Abs gave positive results. Two of them detected Map antigens in focal lesions and in all the tissues harbouring Map, with lack of background, no unspecific immunolabelling and a better definition of the positive signal than the polyclonal Abs. In the remaining two, immunolabelling was weaker and unspecific staining was observed. All the four Ab cross reacted with Maa.

*Discussion and conclusions:* Negative results obtained with the purified Ab were probably due to their inability to detect the specific epitope of Map, or to its low concentration. Two of the supernatants (55.60.1A1.11 and 56.17.2A0) have shown to be good candidates for its use in IHC techniques, regarding the staining quality, bearing in mind that they can not distinguish between the two subspecies of *Mycobacterium avium*.