

Immunoglobulin G bound to ovine placenta is eluted by surgical cannulation and acid perfusion in situ

Abstract:

To elute placental bound immunoglobulin G (IgG) in situ. DESIGN: Laboratory based experimentation. SETTING: Biological Sciences Department, The University of Newcastle Australia and the Department of Biochemistry, University of Nairobi, Kenya. SUBJECTS: Twelve pregnant ewes 10 to 15 days before the onset of natural parturition. RESULTS: Placental eluates were rich in IgG, and IgG2. The relative molecular weight of placental IgG was estimated at 158kDa by gel filtration chromatography. Analysis of eluate by SDS PAGE revealed the heavy and light chains of IgG at 57 and 27kDa respectively together giving a relative molecular weight of 168kDa. CONCLUSION: Placental bound IgG may be crucial in immunology of pregnancy and together with the cognate antigen thereof may be useful as models for the study of maternal-fetal interaction in human pregnancy and in the development of experimental immunotherapy to immunologically compromised pregnancies in humans and livestock