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New publications in the PARATUBERCULOSIS database (849-852)

Proposing a relationship between Mycobacterium avium subspecies paratuberculosis infection and Hashimoto’s thyroiditis
Scandinavian Journal of Infectious Diseases, 42, 787-790

Humans are widely exposed to Mycobacterium avium subspecies paratuberculosis (MAP), a proven multi-host chronic enteric pathogen that has recently been linked to autoimmune diabetes. In the present study we used a MAP species-specific polymerase chain reaction with the insertion element IS900-specific probe to detect MAP infection in members of the same family suffering from Hashimoto’s thyroiditis

Johne’S Disease in One Humped Camels (Camelus Dromedarius) in Saudi Arabia
Journal of Camel Practice and Research, 17, 31-34

A total of 3 camels from different herds were submitted separately for postmortem examination including histopathological investigation. These animals were off feed, emaciated and showed chronic and intermittent diarrhoea for 1-3 weeks. Gross pathological examination of these cases revealed thickening of the intestinal wall up to 3 or 4 times normal thickness, with corrugation of the serosa and mucosa. Mesenteric lymph nodes were moderately large and oedematous. Histopathological lesions were diffuse granulomas characterised by extensive macrophages and epitheloid cells infiltration into the mucosa and submucosa of small intestine, and colon, with numerous acid-fast organisms. Multinucleated giant cells, as well as lymphocytes and few numbers of eosinophils were also observed. The ileocaecal lymph node, as well as other mesenteric lymph nodes showed sinus histiocytosis, infiltration of macrophages and epitheloid cells containing acid-fast bacilli, and occasional multinucleated giant cells

Seroprevalence of Bovine Paratuberculosis Specific Antibodies in Khartoum and Al-Jazeera States, Sudan
Journal of Animal and Veterinary Advances, 9, 2098-2101

This study was conducted to estimate the bovine paratuberculosis seroprevalence in Khartoum and Al-Jazeera states, Sudan. The generated results showed that in Khartoum state the seroprevalence of paratuberculosis was 66.7% at the herd level and 10.2% at the individual animal level. The lowest seroprevalence (8%) was found at Kuku and the highest (18.8%) was found at El-Sealeat localities. All sera collected from El-Kadaro, Wad-Medani and El-Salama localities were found negative for Mycobacterium avium Subspecies Paratuberculosis (MAP) antibodies. Khartoum North showed the highest rate of seropositivity whereas Omdurman showed the lowest. Relationship between seroprevalence and clinical manifestation were described. The results of this study reported a widespread of bovine paratuberculosis in the Khartoum state

Comparison of passive transfer of immunity in neonatal dairy calves fed colostrum or bovine serum-based colostrum replacement and colostrum supplement products
Javma-Journal of the American Veterinary Medical Association, 237, 949-954
Objective-To compare serum total protein (sTP) and serum IgG (sIgG) concentrations in neonatal calves administered colostrum or a bovine serum-based colostrum replacement (CR) product followed by a bovine serum-based colostrum supplement (CS) product. Design-Randomized controlled clinical trial. Animals-18 Jersey and 269 Holstein neonatal heifer calves. Procedures-141 calves were given 4 L of colostrum in 1 or 2 feedings (first or only feeding was provided <= 2 hours after birth; when applicable, a second feeding was provided between 2 and 12 hours after birth). Other calves (n = 146) were fed 2 L of a CR product <= 2 hours after birth and then 2 L of a CS product between 2 and 12 hours after birth. Concentrations of sTP and sIgG were measured 1 to 7 days after birth. Data from cohorts on individual farms and for all farms were analyzed. Results-Mean sTP and sIgG concentrations differed significantly between feeding groups. In calves fed colostrum and calves fed CR and CS products, mean +/- SD sTP concentration was 5.58 +/- 0.67 g/dL and 5.26 +/- 0.54 g/dL, respectively, and mean sIgG concentration was 1,868 +/- 854 mg/dL and 1,320 +/- 620 mg/dL, respectively. The percentage of calves that had failure of passive transfer of immunity (ie, sIgG concentrations < 1,000 mg/dL) was not significantly different between groups. Conclusions and Clinical Relevance-Results suggested that sequential feeding of bovine serum-based CR and CS products to neonatal calves is an alternative to feeding colostrum for achieving passive transfer of immunity. (J Am Vet Med Assoc 2010;237:949-954)

New publications in the CROHN’S DISEASE AND PARATUBERCULOSIS database (470)


Objectives: To review the literature on the role of heat-shock proteins (HSPs) in the pathogenesis of autoimmune arthritis in animal models and patients with rheumatoid arthritis (RA). Methods: The published literature in Medline (PubMed), including our published work on the cell-mediated as well as humoral immune response to various HSPs, was reviewed. Studies in the preclinical animal models of arthritis as well as RA were examined critically and the data are presented. Results: In experimental arthritis, disease induction by different arthritogenic stimuli, including an adjuvant, led to immune response to mycobacterial HSP65 (BHSP65). However, attempts to induce arthritis by a purified HSP have not met with success. There are several reports of a significant immune response to HSP65 in RA patients. However, the issue of cause and effect is difficult to address. Nevertheless, several studies in animal models and a couple of clinical trials in RA patients have shown the beneficial effect of HSPs against autoimmune arthritis. Conclusions: There is a clear association between immune response to HSPs, particularly HSP65, and the initiation and propagation of autoimmune arthritis in experimental models. The correlation is relatively less convincing in RA patients. In both cases, the ability of HSPs to modulate arthritis offers support, albeit an indirect one, for the involvement of these antigens in the disease process. (C) 2010 Published by Elsevier Inc. Semin Arthritis Rheum 40:164-175