



Brucellosis 2003 International Research Conference
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Urinalysis was notable for proteinuria 450 mg/24 h and hematuria. Ascitic fluid: WBC 600/mm³, 95% monocytes and 5% neutrophils. Abdominal ultrasonography: hepatosplenomegaly, ascites and signs of portal hypertension. Skin biopsy: leucocytoclastic vasculitis. *Brucella* spp was isolated of blood cultures and ascitic fluid. Serologic test showed: positive Rose Bengal test, SAT 1:320 and Coombs anti-*Brucella* 1:1280. Treatment with doxycycline, levofloxacin and rifampin during 45 days was administered with resolution of rash, ascites and edema and normalization of renal function and platelet level. An abdominal ultrasonography after therapy showed resolution of ascites and portal hypertension.

Cryoglobulinemia has been described in infectious diseases but rarely reported in brucellosis. Cutaneous, renal and hepatic involvement could be related to vasculitis secondary to cryoglobulinemia by *Brucella* spp. Resolution of disease can be obtained with specific antimicrobial therapy similar to others cases of the cryoglobulinemia secondary to others infections.

32- A CASE OF HUMAN BRUCELLOSIS GIVING NEGATIVE RESULTS IN THE SERUM AGGLUTINATION TEST (SAT)?: HOW TO AVOID THE PROZONE AND BLOCKING PHENOMENA.

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Human brucellosis is an important but often neglected cause of morbidity in many regions of the world. The serum agglutination test (SAT) is the most commonly used serological assay for the diagnosis of human brucellosis but in some cases the correct interpretation of SAT results is hindered by the presence of blocking antibodies of the IgA type. Even in sera from culture-confirmed cases of human brucellosis, these antibodies have been shown both to cause the prozone phenomenon and to produce false-negative SAT results due to the so-called blocking phenomenon. We have demonstrated that the prozone phenomenon can be avoided by means of: 1, pre-absorption of the sera with anti-IgA antibodies; 2, the use of a buffer adjusted to pH 5.0 in the SAT; 3, the addition of dithiothreitol. Similarly, we have proven that the blocking phenomenon can be avoided by: 1, pre-absorbing the sera with anti IgA antibodies, although in this case, a positive SAT result appears only if there is a sufficient amount of agglutinating IgG antibodies; 2, using a buffer adjusted to pH 5.0 and, even better utilizing the antigen provided by the manufacturers of the Brucellacapt (Vircell, Granada, Spain) tests.

Conclusion: IgA antibodies are the responsible for both the prozone and the blocking effects. These two phenomena can be avoided by using a buffer adjusted to pH 5 in the SAT. Interestingly, Rose Bengal test is not affected by these two phenomena and we hypothesize that this fact is due to the acidity of its working solution (pH=3.6).