

## SHORT COMMUNICATION

### **Detection of *Brucella* antibodies in the sera and milk of goats using Capillary Tube Agglutination Test in Khartoum State, Sudan**

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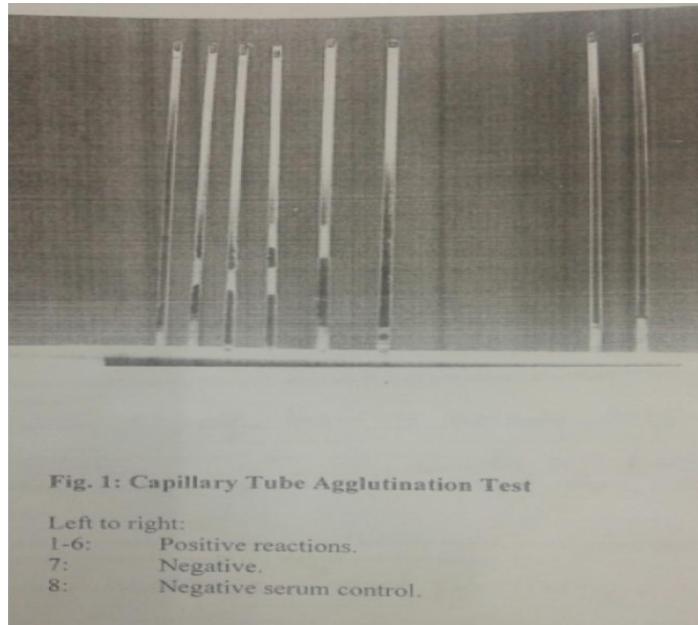
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Brucellosis is an important zoonosis of wild and domestic animals in which man is an accidental host. It has a worldwide distribution, especially in Mediterranean countries and the Middle East and it remains a significant public health concern (Krikic *et al.*, 2006). Two tests are widely used for detection of *Brucella* antibodies in the sera of cattle and goats in the Sudan. They are Tube Agglutination Test (TAT), Rose Bengal Plate Test (RBPT). These tests were used during a previous investigation on caprine brucellosis (Hayfa, 2001; Azza, 2006; Nisreen, 2006). It was considered useful to try other test as Capillary Tube Agglutination Test (CTAT) (Luato, 1953) which is easier to perform and require small amounts of antigen. One thousand sera were tested by RBPT, TAT and CTAT according to Alton (1988). It was previously reported that CTAT gave results comparable to those by TAT in diagnosis of bovine brucellosis (King, 1951). This paper reports the results of the trial of *Brucella* antibodies detection using

CTAT in the Sudan. The antigen used in CTAT was the RBPT antigen was supplied by the Central Veterinary Laboratory, Soba (CVL, Soba). The CTAT was done as described by King, (1951) approximately one third of the capillary tube was filled with the stained antigen and the remainder with undiluted serum by means of capillary action. The tubes were placed in a vertical position in wax with the antigen at the bottom. The tubes were then incubated at 37°C for 2 hours and examined by the naked eye. Fifteen (1.5%) out of 1000 sera were found positive to the RBPT and CTAT, while twenty (2%) were found positive by TAT. Positive reactions in CTAT were clearly indicated by agglomerates visible to the naked eye. The absence of such particles indicated a negative reaction (Fig. 1). The results obtained with this rapid method indicate that its accuracy and specificity are equal to those of any other method also cheapest, rapid and simplest test for diagnosis of caprine brucellosis.





**Fig. 1: Capillary Tube Agglutination Test**

Left to right:

- 1-6: Positive reactions.
- 7: Negative.
- 8: Negative serum control.

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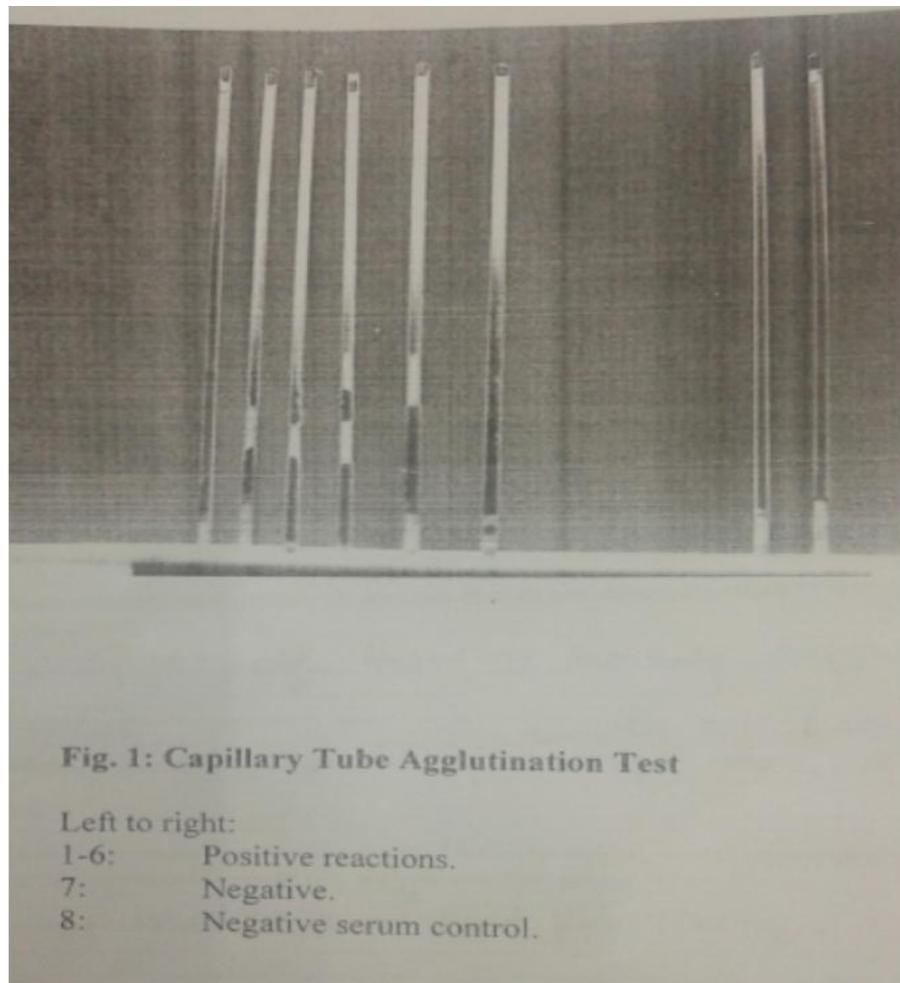
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