

# HUMAN BRUCELLOSIS IN MULTAN

Pages with reference to book, From 288 To 289

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## Abstract

Four cases of human Brucellosis presenting with prolonged fever, enlarged tender liver and splenomegaly are described. One case had lymphadenopathy also. In 3 cases, history of taking unpasteurised milk was obtained. This condition must be considered in patients presenting with P.U.O. A country wide survey for this disease in animals and human beings is suggested. All four cases responded to tetracycline therapy. (JPMA 36: 288, 1986).

## INTRODUCTION

Brucellosis, which is also called "Malta Fever" or undulant fever is caused by a microorganism belonging to the genus "brucella" which is named after Sir David Bruce who first isolated this bacterium in 1887. Animals like goats, sheep, cow, water buffalo and swine act as source of disease for human beings. This disease is transmitted to man through ingestion of raw or unpasteurized milk or fresh cheese. Man to man transmission is very rare.<sup>1</sup>

Human Brucellosis is primarily due to one of the three species i.e. *B. Melitensis* (from goats) *B. Abortus* (from cattle) and *B. Sins* (from hogs). *Brucella* organism is very sensitive to the effect of acid thus it is killed in less than one minute, when exposed to gastric juice, however use of antacids or presence of achlorhydria might predispose to this disease.<sup>2</sup>

A state of allergy develops especially in man to one or more of the antigenic components of *Brucella* organism. This allergy develops after both clinical or subclinical infections and may last for many years. The presence of this allergic state may be detected by the intradermal injection of nucleoprotein fraction obtained from culture of smooth strain of *brucella* organism.

Some work on the incidence of Brucellosis in Pakistan, has been carried out in animals<sup>2-5</sup>.

In the villages of Pakistan, it has been commonly observed, that milk is taken unboiled as the illiterate people think that boiling removes some of the useful ingredients. Since cases of prolonged fever are encountered frequently in this part of the country, it was decided to investigate the cases of P.U.O for brucellosis.

## MATERIAL & METHODS

All the cases with P.U.O. having enlarged liver and or spleen, admitted in the Department of Medicine II, Nishtar Hospital, Multan, were investigated for brucellosis. Brucellosis agglutination test was carried out by a special private laboratory. Blood culture for *brucella* microorganism was not done. During, the last one year four cases could be documented which are summarised in the following table.

**TABLE**  
**Main Features of 4 Cases of Human Brucellosis.**

Age & Sex Occupation	Symptoms	Signs	Investigations	Response to tetracycline
1. 55 Yrs. male doctor	8 months fever took raw milk for years.	Enlarged liver and spleen	Leucopenia brucella agglutination test+ for Br-melitensis in 1:320	Cured
2.30 Yrs. male farmer	3 months fever pain & aches took raw milk	Enlarged liver and spleen	Br. Melitensis 1: 320	Cured
3.60 Yrs. male farmer	6 months fever raw milk intake	Enlarged liver, spleen and lymphnodes	Br. abortus 1: 160	Cured
4.40 years male farmer	4 months fever	Enlarged liver & Spleen	Br. Mellitensis 1 : 320	Cured

## DISCUSSION

In the present series, all 4 cases were adult males from areas surrounding Multan. All had prolonged fever, pains and aches all over the body, enlarged tender liver and splenomegaly, while superficial lymphnode enlargement was noticed in one case only. Western workers however, describe enlargement of peripheral lymphnodes and spleen in half of the cases while hepatomegaly is less common.<sup>6</sup> Three cases reported here were taking unpasteurized milk for many years. All cases responded to tetracycline in doses of 0.5 G,6 hourly orally for three weeks.

Several patterns of the disease are recognised. The acute or subacute form presents with joint involvement, swinging temperature, headache, enlarged liver and spleen. Large number of patients recover with therapy. In odd cases symptoms recur after a prolonged period which is referred to as chronic brucellosis.<sup>7</sup> All cases reported here belong to the latter group.

Human brucellosis has been reported by Khan<sup>8</sup> from Muzaffargarh area. Nur and Robinson<sup>9</sup> noted a positive reaction to standard brucel lergin in 203% of 69 farmers from a village near Malir Cantt (Karachi). A similar survey was carried out by Mohyidin<sup>10</sup> to find the incidence and relationship of brucellosis amongst animals and human beings in Lahore area. Serological investigations were performed on animals of livestock experimental farm at Lahore. in 777 animals the percentage of positive reactions was 259% in buffaloes, 11.04% in cows, 8.7 1% in sheeps and 5.85% in goats. However, in 307 human contacts only 0.6% were positive reactors.

Thus human brucellosis is sporadic in this country. A country wide survey of the disease in human beings and animals is recommended, as this disease is preventable and specific treatment is now available.

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