



BRUCELLOSIS IN CHILDREN: A COMMON CAUSE OF PUO IN PEOPLE RESIDING WITH DOMESTIC AND WILD ANIMALS.

Paediatric Medicine

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ABSTRACT

Brucellosis in pediatrics is common zoonotic infection especially in children living alongside domestic and wild animals. With the availability of newer diagnostic tools at district level centers with early clinical suspicion led to early diagnosis and gratifying results. We have followed eleven cases with positive diagnosis of brucellosis and presenting their clinical features, examination findings, lab work and their outcome.

KEYWORDS

Brucellosis, PUO, Pediatrics, Rajasthan

INTRODUCTION

Brucellosis is one of the common zoonotic infections caused by gram negative bacteria of genus *Brucella*. It continues to be a major public health problem worldwide, approximately 500,000 global cases of brucellosis occur in humans annually, although the exact number should be higher because of under-reporting (1). It occurs where the community resides in close contact with domestic and wild animal, especially in countries Indian subcontinent and the Middle East.

In India, the high-prevalence rural areas include Rajasthan, Punjab, Maharashtra, Andhra Pradesh, Gujarat and, Odisha. A single study performed in Odisha in 2013 to address human brucellosis seroprevalence among high-risk groups determined a maximum seroprevalence of 9.09 (2).

There is no published record of brucellosis in children from Rajasthan (4). We present a Brucellosis case series of 11 children presented at district hospital of Swai Madhopur, Rajasthan during July 2024 to Oct 2024 period, of age 7 – 13 yrs. of age, male: female 7:4. In our study of seven children of total eleven had a history of raw milk consumption, and four children had history of inhouse contact with animals (dog, cow and goat).

Clinical Symptoms

Symptom		Frequency % of total (11 patients)
Fever	>7 days	11 (100%)
Arthralgia jt and back pain	Joint and back pain	3 (27%)
Fatigue	Marked weakness	6 (54%)
Vomiting	Non- bilious	11 (100%)
Pain abdomen	Peri umbilical/ epigastric	5/11 (45%)
Non-specific symptoms like anorexia, sweating, and headache were also present		

Examination: All patients of brucellosis presented with moderate to high-grade fever (>102-104°F) with a normal respiratory rate had tachycardia for age at presentation. Of total eleven patients two had significant hepatomegaly 3-4 cm BCM and one had splenomegaly 4.5 cm BCM. Other systemic examinations were unremarkable.

Investigation: Of all patients, four showed mild thrombocytopenia, and two had severe thrombocytopenia, and 5 patients have significant rise of transaminases AST and ALT i.e. > 3 times of baseline.

Out of 28 patients tested for brucella antigen by ELISA - 11 patients have brucellosis antigen positive of which two patients also tested positive for *Leptospira*, and one patient tested positive for brucella, *Leptospira*, and scrub typhus.

Outcome: All 11 patients were discharged within 4-7-days hospital stay. There were no major complications observed among the patients during stay and follow up.

CONCLUSION AND REMARKS

Brucellosis is common cause of febrile zoonotic disease in children living alongside domestic and wild animals. History of unpasteurized milk consumption and animal exposure should be elicited in children presenting with pyrexia of unknown origin especially children for rural background. Availability of ELISA at district and sub- district center helping clinicians to have early diagnosis with better accuracy, reducing need of broad-spectrum antibiotics or frequent experimenting with antibiotics.

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Conflict of Interest: none

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