Web of Medicine: Journal of Medicine, Practice and Nursing
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Volume 4, Issue 4, April 2026 **ISSN (E):** 2938-3765

CLINICAL-EPIDEMIOLOGICAL CHARACTERISTICS AND LABORATORY MARKERS OF ACUTE BRUCELLOSIS IN THE KASHKADARYA REGION

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Abstract
This paper presents the results of a study on the characteristics of the course of acute brucellosis in the Republic of Uzbekistan. Data analysis was conducted on 120 patients selected from 178 individuals presenting with clinical signs of infection. A predominance of males was established among the cases (75.00%), which is attributed to the specifics of regional animal husbandry. The work details the routes of infection, gender differences in clinical manifestations, such as sacroiliitis, and key hematological changes.

Keywords: Acute brucellosis, zoonotic infection, transmission routes, hepatosplenomegaly, sacroiliitis, Kashkadarya region.

Introduction

Brucellosis is one of the most common zoonotic infections in the world, characterized by a high frequency of transition into chronic forms. Annually, several hundred thousand to several million new cases of the disease are registered worldwide. Central Asian countries are among the regions with the highest incidence rates. In the conditions of the Republic of Uzbekistan, especially in the Kashkadarya region, close contact of the population with livestock makes the problem of brucellosis socially and economically significant.

Materials and Methods

In the course of the work, 178 patients were examined, of whom 120 met the inclusion criteria (age over 18 years, symptom duration up to 3 months). The control group consisted of 30 healthy individuals. The average age of the participants was 35.9±2.8 years. Diagnostics were performed using the ELISA method with the determination of IgM and IgG class antibodies using NovaLisa test systems (Germany). Statistical data processing was carried out in SPSS 20.0 and STATISTICA 6.0 software.

Results and Discussion

Epidemiological aspects

The majority of the infected reside in rural areas (71.67%), where animal husbandry is developed. The study revealed clear gender differences:

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Males account for 75.00% of the total number of patients.

Women aged 40–49 years contract the disease 7.5 times more often compared to other age groups of their gender.

The contact transmission route (45.00%) is more common in men (by 8.7 times), while the alimentary route (32.5%) is more common in women (4.8 times more than the contact route).

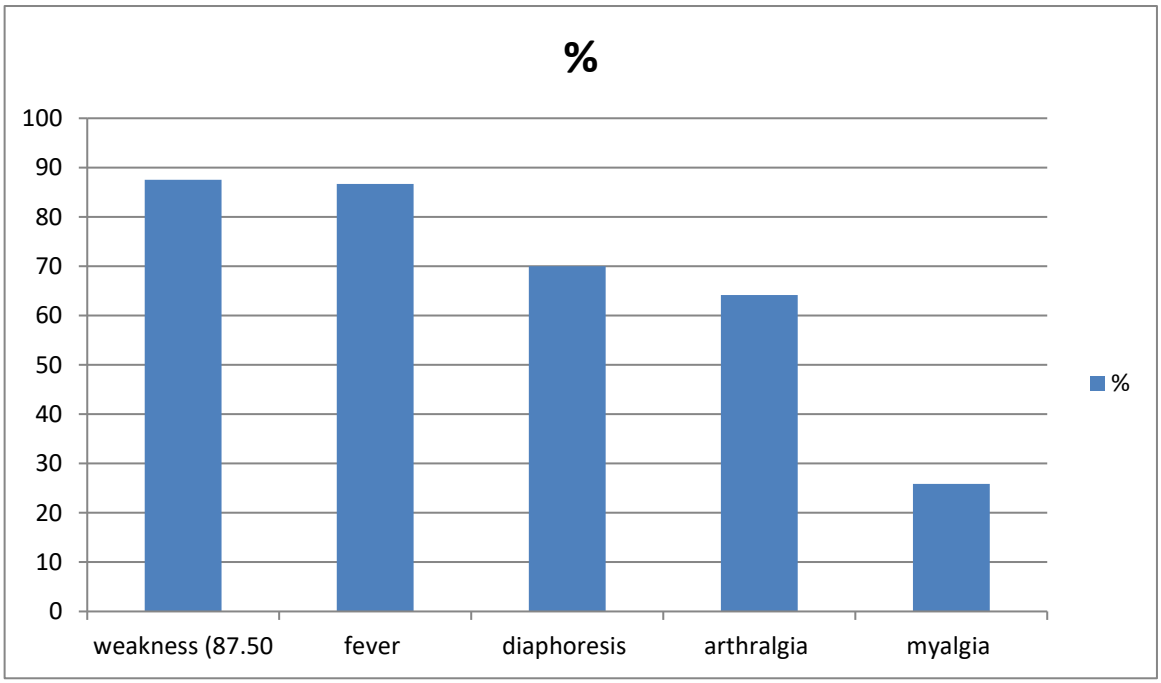
Clinical picture

The symptomatology of the acute period is characterized by a diversity of organ and system involvements. The main complaints of the patients included:

· General weakness (87.50%) and fever (86.67%).

· Diaphoresis (70.00%) and arthralgia (64.17%).

· Myalgia and weight loss were noted less frequently (25.83%).



Objective signs of joint involvement are of particular importance: sacroiliitis and peripheral arthritis developed in women 15.8 and 12 times more often, respectively, than in men. Additionally, hepatosplenomegaly and lymphadenopathy were frequently registered in patients.

Laboratory markers

Blood analysis revealed significant deviations from the norm in the main group:

· Increased erythrocyte sedimentation rate (ESR) — 72.50% of cases.

· Anemia of varying severity — 53.33%.

· Elevated transaminase levels: ALT (35.83%) and AST (40.00%).

Conclusion

Acute brucellosis in the studied region primarily affects individuals of working age involved in agriculture. The high polymorphism of symptoms and the presence of gender characteristics (predominance of joint involvement in women) require a comprehensive approach to early diagnosis

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from physicians. Timely identification of specific markers and consideration of epidemiological history are key factors in preventing patient disability.

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