



# Prevalence of brucellosis in Kohgiluyeh and Boyer Ahmad Province in 2017

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## ABSTRACT

**Introduction:** Brucellosis is a common infectious disease between humans and livestock, which can cause severe economic and health damage to the community. Considering the importance of this study, the aim of this study was to determine the prevalence of brucellosis in Kohgiluyeh and Boyer Ahmad Province in 2017.

**Materials and Methods:** This retrospective cohort study was conducted to determine the rate and causes of brucellosis in Kohgiluyeh and Boyer Ahmad province in 1396. Sampling was done by census. Information about 300 patients with brucellosis, collected from April to July 1996, was collected. In order to collect data from a researcher-made list, data collection for brucellosis patients was used. Descriptive statistics and SPSS 21 series software were used to analyze the data.

**Results:** 17 cases had negative test. The highest number of occurrences in 2016 was 143 cases and the highest occurrence was 171 in the spring. Boyer Ahmad city has the highest rate with 107 cases and Bahmei city with the least amount of brucellosis in 9 cases. 360 people were from rural population. The group of livestock breeders with 147 cases was the most affected and the military group with the least one was the least.

**Conclusion:** By planning properly and timely, you can prevent the disease, complications and dangers of brucellosis.

**Keywords:** brucellosis, gram negative basil, prevention

## INTRODUCTION

Brucellosis is a common disease between humans and animals and appears in acute, acute and chronic forms (1). The prevalence of this disease depends on the number of livestock and the absence of complete animal vaccination (2). Among the various causes of brucellosis, the most common cause of the bacterial pathogenicity of the coccobacilli is germicide of the invasive *Brucella* National Tenissi (3). Communication and consumption of animals such as sheep, dogs, camels and cows, dolphins and eel can provide conditions for the disease in humans (4). Brucellosis can even survive in dairy products for a long time, causing contamination and disease in humans (5). Human involvement with brucellosis is very important both in terms of health and economics (6).

Due to the inaccessibility of accurate data on the extent of infection, there is no accurate statistics on the distribution of this disease in the world (7). In Iran, the number of cases of brucellosis has been estimated to be around 25% per 100,000, which is declining annually (8). Brucellosis is present in various parts of the world, especially in the Mediterranean, the Middle East, the Arabian Peninsula, Central and South America, Asia and Africa (9). In countries like the United States, the disease is considered a work hazard (10). The most frequent season that this disease may develop is spring and summer, and it is seen in rural areas more than urban areas (11). In Iran, there are concerns about the disease in the western regions (12). Kohgiluyeh and Boyer Ahmad province, in terms of geographical location and its

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high share in livestock breeding, can be among the cases of exposure to brucellosis. The brucellosis fever can be transmitted through conjunctiva, scratches, excreta, contaminated tissues, and through the respiratory system to humans [13]. Human transmission to humans is rare (14). The brucellosis mosquito course has been reported for one to three weeks (15). And with symptoms such as sudden shivering, pain, weight loss, headache, loss of appetite and excessive sweating (16). For diagnosis of brucellosis, bacteriological, serological and internal tests are used (17). Brucellosis disease control depends on its agent control (animals) (18). Lack of information, credit, and lack of access to resources can increase the process of control and treatment of brucellosis, which requires intergenerational collaboration (19). An increase in the prevalence and incidence of brucellosis can have irreparable consequences for the health system of the country (20). Lack of control of livestock and poultry keeping. Also, lack of adequate supervision of products derived from them, such as dairy and edible tissues, can generally disrupt the community (21). Regarding the importance and status of the subject, the present study aimed to determine the rate and causes of brucellosis in Kohgiluyeh and Boyer Ahmad province in 2017.

## **MATERIALS AND METHODS**

The present study was a descriptive-analytic study with the aim of determining the rate and causes of brucellosis in Kohgiluyeh and Boyer Ahmad Province during the period of April-2015. Sampling was done by census and the study population included 300 patients with brucellosis. After obtaining the necessary permissions from the authorities and receiving the code of ethics, the necessary information was obtained through the examination of the file of patients with brucellosis. Information was extracted from the checklist of the case and information about the patients. After completing the data, descriptive statistics methods were used to analyze and analyze.

## **FINDINGS**

The mean age of the patients was 39 years. According to the results obtained in 2005, 2006, and 1392, only one case of brucellosis was reported. Of the 300 patients with brucellosis, the number of cases had 17 negative tests. The highest number of occurrences in 1395 was 143 cases and the highest occurrence was 171 in the spring. Boyer Ahmad city has the highest rate with 107 cases and Bahmei city with the least amount of brucellosis in 9 cases. 360 people were from rural population. The livestock jobs with the highest 147 cases and the military occupation with the least number of cases were the lowest. There were 182 patients with a history of previous brucellosis. There were 294 cases of predisposed livestock contacts. Of the number of affected people, 217 were trained in livestock keeping. 282 had non-pasteurized dairy consumption (**Table 1**).

## **DISCUSSION**

In the present study, the results showed that the highest incidence was male, a study by Taheri Sudoujani et al. in all in Shahre-kord showed that men had a higher rate of infection due to the higher exposure of men to the affected livestock (8). The mean age of the patients was 39 years, which was consistent with the results of the research. Dehnavi et al., The age status of the individuals indicate that the age group is more likely to have fever than the other age groups due to their high performance and activity. Malta (22).

Some people have had a negative result after testing, which is consistent with the results of Mostafavi et al. (23), livestock care and seasonal conditions can also affect the brucellosis. Based on the results, the rate of brucellosis on the basis of risk has increased that the results Soleimani et al and Mohammedan et al were similar (24, 25), increase the rate of brucellosis in Kohgiluyeh Boyer Ahmad can be caused by the low awareness and lack of proper treatment of animals, lack of coverage of immunization of animals and the consumption of contaminated factor. Also, the distribution of the rate of brucellosis in different cities confirms this trend. People living in the village had the highest rates, which is the result of Hamzuy et al. (26), because of the greater exposure of the rural population to the livestock of this group is more likely to be exposed than urban populations. Farmers were more likely to suffer from brucellosis than the rest of the population. Ehrat et al. Found that the largest group of brucellosis was the livestock population, which confirms the result, the more people have more direct contact with animals and livestock. Prolonged to have a brucellosis (27). While the highest number of people with a history of family history of fever did not have this, Royan et al. (28) found this to be the case. Of course, a history of heart disease can have a greater impact on the development of the next. People who had milk had the highest levels of infection, Mousavi and colleagues concluded in their study that most people with brucellosis had higher milk intake than dairy products (29), milk as an important The most important source of animal

**Table 1:** Number of people affected by the table based on different variables

	Variable	Number
Year	2017	68
	2016	143
	2015	14
	2014	18
Season	Spring	71
	Summer	94
	Fall	59
	Winter	57
City	Basht	13
	Bahmei	9
	Boyer Ahmad	107
	Dena	36
	Kohgiluyeh	12
Location	Gach-saran	89
	Urban	32
	Rural	360
Dairy consumption	Lion	264
	Butter, colostrum and milk head	8
Family history	Cheese	28
	No previous history	182
	With previous history	55
Group	Unknown record	-
	Housewife	100
	Child	15
	Student	18
	Manual worker	9
	Animal husbandry	147
	Student	2
Free	7	
	Military	1

dairy and, on the other hand, due to its high consumption, can cause the spread of brucellosis more than other dairy groups, which is not enough attention to harvest control and how it is produced and consumed.

## CONCLUSION

Given the nature of Kohgiluyeh and Boyer Ahmad province and the existence of livestock and dairy production, as well as the high consumption of livestock and dairy products in the province, since it is possible that the infection with brucellosis is high in such a situation, it is better to have the necessary training programs General and specific at different levels of prevention for different classes of society.

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