



RETROSPECTIVE ANALYSIS OF DONOR BLOOD FOR BRUCELLOSIS BY SURKHANDARYA REGION.

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| Article history: | Abstract: |
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| <p>Received: 10th March 2024 Accepted: 6th April 2024</p> | <p>We conducted a comparative retrospective analysis of the detection of brucellosis among blood donors of the Surkhandarya region. This research is useful for understanding the degree of prevalence of brucellosis infections among donors. This research was conducted for the first time among donors. So that, comparative retrospective analysis of the detection of brucellosis disease among blood donors who applied to the transfusion station of Surkhandarya region, which is the highest indicator number of donations in 2018-10692, the number of analysis-10692, number of positive results - 157 units (1.47%) and the lowest figure is the number of donations in 2020 - 11365, the number of analysis are 11365, the number of positive results is 40 (0.35%).</p> |
| <p>Keywords: Retrospective Analysis, Brucellosis, Transfusion, Blood Donor, Donations,</p> | |

INTRODUCTION. Among the hemotransmissible infections is brucellosis —zoonosis infection, is transmitted from infected animals to humans and is characterized by numerous injuries to the organs and systems of the human body. Brucella is an infectious disease caused by various brucella that can affect the musculoskeletal and nervous systems, lymph nodes and some other human organs, often leading to disability if there is not enough treatment [3]. According to its epidemiology, brucellosis is a typical zoonosis infection that is transmitted to humans from animals. Mainly to people this disease is caused by brucellosis infection, the waste of animals, dairy and meat products, contaminated wool, skin, alimentary pathways, in the case of direct contact and through the air as well as hemocontact, breastfeeding children can be infected with the disease through breast milk. Since the 1950s, the risk of contracting brucellosis with blood transfusion has been known [4]. One of the basic principles of transfusions blood and its components is infection safety [2]. Infection safety is one of the main principles of blood transfusion and its components. An important step towards infection to the recipient is to check for signs of infection from blood donors. The results of the screening of hemotransmissible markers of the importance of infections have a certain epidemiological nature.[2,8]. Brucellosis is common in more than 170 countries and regions around the world [1] Infections in the territory of the Russian Federation. In the Republic of Dagestan, the largest number of newly diagnosed cases of brucellosis in people in the territory of the North Caucasus federal district is registered (59.3%) and Stavropol Territory (27.4%). Incidence of brucellosis Stavropol Territory exceeds the territory of all Russia by 5-10 times. The actual prevalence of brucellosis increases by 25% from Statistics, taking into account clinical forms that are not included in the official list. In 49.7% of cases, a person is infected by contact with large and small cattle. Mostly men (78.3%), people of working age (67.7%) are sick; When 78.5% of patients sought medical help, serological examination was found to cover groups with a risk of contracting brucellosis to 79.9%. Incidence of acute brucellosis in Russia: in 2014 - 368, in 2015 - 394, and in 2016 - 334 cases. In 17.5% of cases, individuals with a positive attitude in the Stavropol Territory are patients with a subclinical form of brucellosis. According to Russian researchers, the actual prevalence of brucellosis increases by 25% from Statistics, taking into account clinical forms that are not included in the official list. [4,5,7]. At the same time, it seemed interesting to us to identify the features of the emergence of this infection in the context of the territories of the Republic of Uzbekistan.

OBJECTIVE. Conducting a comparative retrospective analysis of the detection of brucellosis disease among blood donors of the Surkhandarya region.

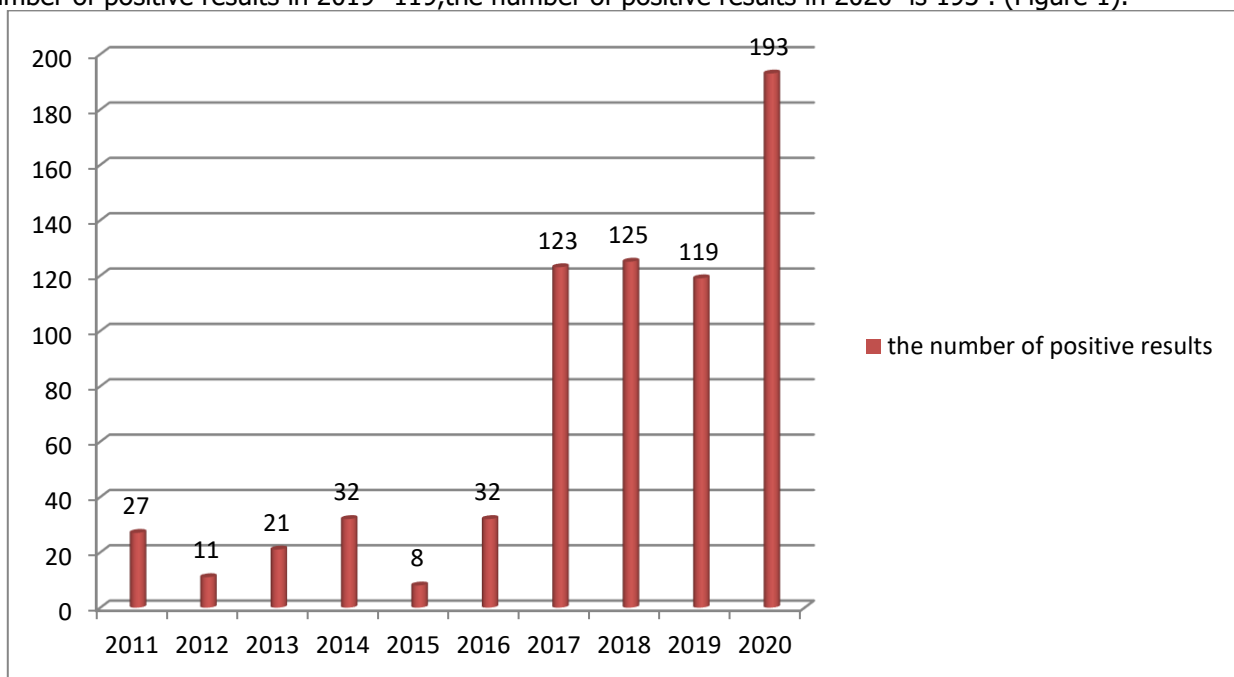
METHODS AND MATERIALS. Republican blood transfusion center of the Republic of Uzbekistan retrospective analysis based on statistical documents on the registration of cases of detection of brucellosis among blood donors in 2011-2020.

RESULTS. Analyses showed that in 2011 the number of donations-5622, the number of analysis-5614, the blood volume lost with a positive result,(liter) -11,21, in 2012, the number of donations - 5172, the number of analysis-5172, the blood volume lost with a positive result, (liter) -5,2, in 2013, the number of donations - 6113, the number of analysis

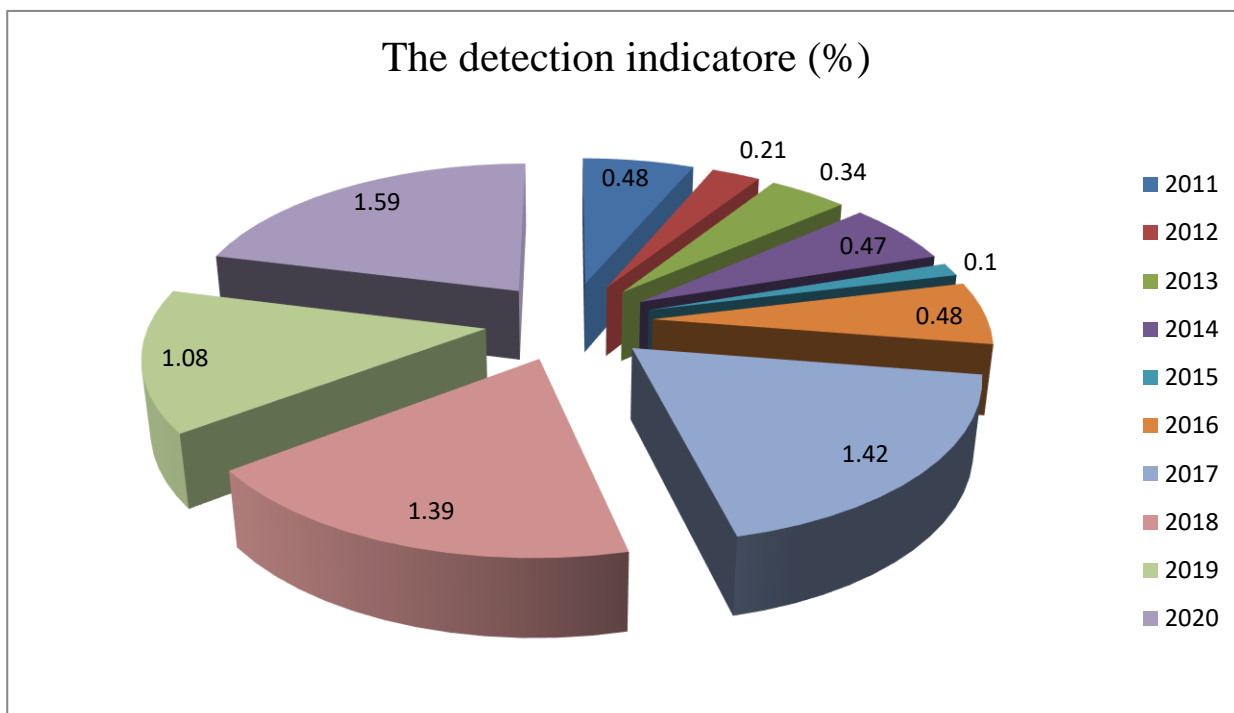
- 6113, the blood volume lost with a positive result, (liter) -9,6, in 2014, the number of donations - 6850, the number of analysis - 6850, the blood volume lost with a positive result, (liter) -14,4, in 2015, the number of donations - 8295, the number of analysis- 8233, the blood volume lost with a positive result, (liter) -3,9, in 2016, the number of donations – 6685, the number of analysis -6685, the blood volume lost with a positive result, (liter) -14, in 2017, the number of donations – – 8690, the number of analysis - - 8690, the blood volume lost with a positive result, (liter) -53,3, in 2018, the number of donations – 8985, the number of analysis - 8980, the blood volume lost with a positive result, (liter)-56, in 2019, the number of donations - 10972, the number of analysis - 10943, the blood volume lost with a positive result, (liter)-55, in 2020, the number of donations – 12129, the number of analysis-12096, the blood volume lost with a positive result, (liter)-87. (Table 1).

| Years | the number of donations | the number of analysis | the blood volume lost with a positive result |
|-------|-------------------------|------------------------|--|
| 2011 | 5622 | 5614 | 11,21 |
| 2012 | 5172 | 5172 | 5,2 |
| 2013 | 6113 | 6113 | 9,6 |
| 2014 | 6850 | 6850 | 14,4 |
| 2015 | 8295 | 8233 | 3,9 |
| 2016 | 6685 | 6685 | 14 |
| 2017 | 8960 | 8960 | 53,3 |
| 2018 | 8985 | 8950 | 56 |
| 2019 | 10972 | 10943 | 55 |
| 2020 | 12129 | 12096 | 87 |

The number of positive results showed that the number of positive results in 2011 - 27, the number of positive results in 2012 - 11, the number of positive results in 2013 - 21, the number of positive results in 2014 - 32, the number of positive results in 2015 - 8, the number of positive results in 2016 - 32, the number of positive results in 2017 - 123, the number of positive results in 2018- 125, the number of positive results in 2019- 119, the number of positive results in 2020 is 193. (Figure 1).



The detection indicator showed that, 0,48% in 2011, 0,21% in 2012, 0,34% in 2013, 0,47% in 2014, 0,10% in 2015, 0,48% in 2016, 1,42% in 2017, 1,39% in 2018, 1,08% in 2019, 1,59% in 2020. (Figure 2).



DISCUSSION. In this research, we found that the Republican blood transfusion center of the among the blood donors in 2011-2020 cases of detection of brucellosis are based on statistical documents that are in listed. We conducted a comparative retrospective analysis of the detection of brucellosis among blood donors of the Surkhandarya region. This research is useful for understanding the degree of prevalence of brucellosis infections among donors. This research was conducted for the first time among donors.

CONCLUSION. Thus, the highest indicator of a comparative retrospective analysis of the detection of brucellosis disease among blood donors who applied to the blood transfusion station of the Surkhandarya region is in 2020 the number of donations - 12129, the number of analysis – 12096, the number of positive results - 193 (1,59%) , the blood volume lost with a positive result,(liter)-87 and the lowest indicator in 2015 the number of donations - 8295, the number of analysis – 8233, the number of positive results is 8 та (0,10%), the blood volume lost with a positive result,(liter)- 3,9. In 2011-2020, among the blood donors of the Surkhandarya region, the number of donations – 79783, the number of analysis - 79616, the number of positive results - 691 (7,56%) showed cases of the blood volume lost with a positive result, (liter)- 309,61

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