



**NIGERIAN SOCIETY OF BIOCHEMISTRY  
AND MOLECULAR BIOLOGY**

**BOOK OF ABSTRACTS**

**37<sup>th</sup> ANNUAL  
SCIENTIFIC CONFERENCE  
KATSINA 2019**

**THEME:**

**BIOCHEMISTRY & MOLECULAR BIOLOGY:  
OPTIMISING THE VALUE OF LOCAL RESOURCES  
FOR DIRECT FOREIGN INVESTMENT AND YOUTH EMPOWERMENT**



**DATE:** 4th – 8th November, 2019

**TIME:** 10:00am Daily

**VENUE:** Umaru Musa Yaradua University, Katsina, Katsina State

PARTHOLOGICAL EFFECT OF SOME HORMONS ON RATE INFECTED WITH *TRYPANOSOMA BRUCEI BRUCEI*.

Bashir Adamu Kugu<sup>\*1</sup>, Halima Ali Muhammad<sup>2</sup>, Maryam Abdulkadir Kassim<sup>2</sup>, Nusaiba Bala Sarkin Gobir<sup>2</sup>, Sarah Iwuongo Bala<sup>2</sup> and Zainab Saleh Tamba<sup>3</sup>.

Nigerian Institute for Trypanosomiasis Research (NITR). #1 Surame Road, Unguwan Rimi, GRA. P.M.B. 2077 Kaduna state, Nigeria.

\*Corresponding author: Mobile Phone: +2348067029512; E-mail: bashkugu@yahoo.com

**Abstract**

The Pathological effect of some hormones on rats infected with *trypanosoma brucei brucei* was investigated. The rats were divided randomly into two groups (Group one and two), Ten in each group. Group two were infected intraperitoneally with the same load of parasites. At the peak of parasitaemia, the rats were sacrificed by human decapitation and blood samples were collected for serum biochemical analysis. The level of Alanine Aminotransferase (ALT) and Aspartate Aminotransferase (ASP) was investigated using Bergmeyer *et. al.* (1978) using a commercial reagent kit. Alkaline phosphatase (ALP) was investigated using McComb and Bowers (1972) with a commercial reagent kit. The blood serum analysis of ALT, ASP and ALP were significantly higher in the infected group. In conclusion, The presence of *trypanosoma brucei brucei* in the brain, cardiac muscles, hepatocellular damage and generalized degenerative changes in other tissues and organs in trypanosomiasis.

CB 133

SEROPREVALENCE AND RISK FACTORS OF BOVINE BRUCELLOSIS IN NIGER STATE, NIGERIA.

FAROTIMI, Adebayo Tosin\*; SHITTU, Oluwatosin Kudirat; MAKUN, Hussaini Anthony

\*Biochemistry Department, Federal University of Technology, Minna, Nigeria  
[farotimi.pg820638@st.futminna.edu.ng](mailto:farotimi.pg820638@st.futminna.edu.ng) +2347032021036

**Abstract**

Brucellosis is a worldwide zoonosis that is recognized as a major cause of economic losses in livestock due to its primary effect on the reproductive system in affected animals which result into reduction in production and serious threat to human health. In this study seroprevalence of bovine brucellosis were studied in some selected abattoirs in Niger State. Rose Bengal Plate Test (RBPT) was used to screen for the presence of the bacteria antibodies, Enzyme Linked Immunosorbent Assay (ELISA) as a confirmatory test and questionnaire survey to assess the level of awareness and risk factors. The study was conducted in 12 randomly selected abattoirs in Niger State from which a total of two hundred and ten blood samples were collected and fifty respondents interviewed. Out of 210 samples, One hundred and six (50.48%) samples were seropositive by RBPT, and seven (6.60%) samples were confirmed positive by ELISA. Thirty eight (53.52%) male samples were tested positive to RBPT, and five (13.16%) were confirmed positive by ELISA. Sixty eight (48.92%) female samples were tested positive to RBPT, and two (2.94%) were confirmed positive by ELISA. The risk associated factors based on respondent from veterinary hospital staffs, abattoir workers and cattle farmers are awareness and acknowledge existence of brucellosis 34 (68%), post-secondary education 13 (26%), inter-keep of other animals with cattle 13 (26%), veterinary based hospital treatment of infected animals 15 (30%), use of Personal Protective Equipment (PPE) 10 (20%) and direct raw milk consumption 23 (46%). The variations in the results of the two tests showed that many of the RBPT test results were falsely positive because of its relatively low specificity. However, the detection of 6.60% seroprevalence indicates that the disease may have remained unabated. Also, the prevalence of disease in abattoir cattle put humans at risk. Therefore, a more specificity test should be used to screen animal before slaughter.

**Keywords:** Bovine, Brucellosis, ELISA, Rose Bengal, Seroprevalence.