

**NSAP****47th Annual
Conference
(JOS 2022)****CONFERENCE
PROCEEDINGS**THEME
SECURING ANIMAL
AGRICULTURE AMIDST
GLOBAL CHALLENGES**SEROPREVALENCE OF *Peste des Petits Ruminants* IN SMALL RUMINANTS
IN DUTSIN-MA LOCAL GOVERNMENT, KATSINA STATE**

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ABSTRACT

A total of 160 serum samples from 16 Villages were collected. A PPRV competitive enzyme-linked immunosorbent assay was used to test the samples and the data was analyzed. The overall prevalence of sera positive for PPRV antibodies was 40% (n = 64 positive, out of which 39 goats and 24 sheep were positive). Statistically, there were significant differences in the seroprevalence between the villages. There were no significant differences in the PPRV seroprevalence between sex of animals (p = 0.894), age (p = 0.681), breed (p=0.636) and between species (p = 0.473). Detection of the PPRV among sheep and goats in all the villages shows that, PPRV is endemic in the study area. It is therefore, recommended that PPR control measures and vaccination be intensified in the study areas.

INTRODUCTION.

Peste des Petits Ruminants (PPR) also known as stomatitis pneumoenteritis complex (SPC) or small ruminant plague is caused by an infectious PPR virus, a member of morbillivirus. It is mainly a disease of Sheep and Goats that is of economic significance in Nigeria. It is probably the major cause of goat mortality in the country (Abu, et al.2017). Outbreaks occur regularly in small ruminants throughout Nigeria. [Woma et al 2016]. The disease is characterized by pyrexia, depression, anorexia, diarrhoea, respiratory distress, mucopurulent oculo-nasal discharges. There are many documented reports of the endemic nature of PPRV in Nigeria .(Ularamu et al. 2012). Outbreaks have continued to occur in the country during the last 40 years, despite the introduction of the tissue culture rinderpest vaccine against PPRV in the 1980s. (Woma et al,2015). PPR is the major constraint to small ruminant production. The disease is an economically significant disease, considering the fact that small ruminants provide sources of revenue to both government and the people, employment to the rural populace, milk, meat, Skin for leather industry and manure for crop production . (Brumby, 1990) The disease is priority, in order to ease poverty and improve the health and husbandry of animals kept by resource -poor people in this developing country (FAO & OIE, 2018).



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MATERIALS AND METHODS

A total of 160 blood samples were collected from small ruminants in all the sixteen villages of the eleven(11) ward of Dutsin-Ma local government area council. Two mls of blood sample was collected and allowed to clot at room temperature to obtain sera. The collected sera were then transferred to sterile bottles and stored at -20°C until examined. Species, breed, sex and age of the animals were recorded at the point of sampling.

SEROLOGY

Blood serum was added to the wells of the micro plates and incubator at 37°C for 45 minutes Then washed 4 times with washing buffer, Then, conjugate solution and dilution buffer was mixture together, then added to the well. It was covered and incubated at room temperature for 30 minutes and washed again. Conjugate solution and Dilution Buffer was added which given a white and a blue coloration , then it was covered and incubated in the dark place for 15 minutes at room temperature The stop solution was add which changing the white blue coloration to white and yellow, later changes blue and red when inserted into. ELISA reading machine. . The red indicate positive while the blue indicate negative.

RESULTS

TABLE 1: Apparent and True prevalence of *Peste des Petits ruminants virus* antibodies in small ruminants in Dutsin-ma Local Government Area, Katsina State

CATEGORY	Villages	Sample analyse	Number positive	Apparent prevalence %	Chi square value	P value
Dutsin-ma	Wangara	10	4	40	25.833	0.040*
	Dedelawal	10	5	50		
	Rayi	10	3	30		
	Dutsin-ma	10	5	50		
	Katanga	10	1	10		
	Karofi	10	2	20		
	Kuki	10	4	40		
	Makera	10	3	30		
	Dabawa	10	3	30		
	Mahuta	10	8	80		
	Yanshatuna	10	7	70		

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	Sanawa	10	7	70		
	Shema	10	4	40		
	Nasarawa	10	1	10		
	Kutawa	10	4	40		
	Bagagadi	10	3	30		
Sex	Female	99	40	40.4	0.018	0.894NS
	Male	61	24	39.3		
Breed	R.Sokoto	72	30	41.7	3.419	0.636NS
	Crosses	12	6	50		
	Sahel	8	4	50		
	Balami	28	12	42.9		
	Uda	4	2	50		
	Yankasa	36	10	27.8		
SPECIES	Goat	92	39 9	42.39	0.516	0.473NS
	Sheep	68	25	36.78		
AGE	Adult	107	44	41.12	0.169	0.681NS
	Young	53	20	33.73		

DISCUSSIONS

Results from ELISA test indicate that an overall prevalence of PPR virus antibodies in small ruminants in Dutsin-ma was 40%. This is in agreement with the 56.1% obtained by Bukar *et al.*, 2020).

CONCLUSION

The current seroprevalence of PPR in small ruminants in the study area is 40% . This shows that there is a wide spread occurrence of PPR and this confirm that PPR is endemic in Dutsin-ma local government Area of Katsina State.

RECOMMENDATIONS

Awareness among farmers about the disease, seasons of outbreak, availability of vaccine, quarantine for newly bought animals and isolation of sick animals should be encourage . Proper recording of disease outbreaks and their socio-economic impact should be

documented for correct assessment of the damage to enable policy makers to come up with a suitable solutions

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