Egyptian Journal of Sheep & Goat Sciences, Proceedings Book of the 5th International Scientific Conference on Small Ruminant Production, Sharm El Sheikh-Egypt, P: 38-39, 2015

PESTE OF SMALL RUMINANTS IN ALGERIA: VIRUS CIRCULATION BY SEROSURVEY PRELIMINARY RESULTS

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ABSTRACT

Peste of small ruminants (PPR) is a highly contagious viral disease that mainly infects sheep and goats. PPR was firstly reported in West Africa in 1942 (**Gargadennec and Lalanne, 1942)** and spread to East Africa, the Middle East and Asia (**Muniraju et al., 2014)**. In recent years it is extending to all the North African countries (**Couacy-Hymann, 2013)** and this could be due to the movement of animals from Sudan, Egypt and the Middle East (**Banyard et al., 2010)**.

In Algeria, a serosurveillance was undertaken in 2011 in the Sahara desert region that confirmed serologically positive cases. However, the RT-PCR result was negative, and there were no signs of the clinical disease (**OIE, 2011b)**. In 2012, **De Nardi et al, (2011)** reported circulation of lineage IV PPRV in Algeria. In the present study we reported the sero-prevalence of PPRV infection in sheep and goats allover Algeria.

A national sero-surveillance on small ruminants (sheep and goats) was conducted in 2012. The survey covered all the 48 administrative districts (Wilayas) of the country. The animals were randomly sampled for serologic screening for PPR. Blood samples were collected from 70 animals from each species from each district. A total of 3396 samples (2786 sheep and 610 goats) were collected from 202 livestock herds distributed over the 48 districts of Algeria. The serum samples were screened for PPRV-specific antibodies using c-ELISA commercially available kits.

The results revealed the rate of serologic prevalence of PPR, at the national level, has to be 68.8% where 139 herds were positive out of 202 total herds. This national sero-prevalence rate is relatively high compared to the rate of 28.9% reported in the North of Burkina Faso (**Sow et al., 2008)**. Similarly there was spatial variability of the prevalence between the different regions of the country; the highest prevalence rate was registered for the west region (86.8%) while the lowest was for the north (51.4%). However, the statistical analysis did not show significant difference among regions.

At individual level, sero-prevalence was lower in sheep (17.4%) than in goats (24.9%). Further, this study showed that there is a relationship between the animal's age, sex and the prevalence of PPR. We observed that seroprevalence was higher in young population, and in females compared to the adult population and males.

There is no regular vaccination against PPR in Algeria. The sero-prevalence evaluated in small ruminants in this survey, in different region of the country, indicated that there is circulation of the virus throughout the country. Therefore it is of utmost importance to put in place a control strategy to control PPR in the country.

ACKNOWLEDGEMENTS

We would like to thank the veterinary services of the Ministry of agriculture and rural development (MADR) for providing data. Part of sample analysis was carried out at the Pirbright laboratory under the grant EU-BBSRC Anihwa BB/L013657/1.

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