

# SEROPREVALENCE AND RISK FACTORS ASSOCIATED WITH SMALL RUMINANT LENTIVIRUS INFECTION IN THE NORTH-EASTERN OF PORTUGAL - PRELIMINARY RESULTS

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## INTRODUCTION

The small ruminants lentiviruses (SRLVs) are a group of viruses responsible for Maedi-Visna (MV) in sheep and caprine arthritis encephalitis (CAE) in goats. These diseases may result in progressive and persistent infections that affect animal health and cause severe economic losses of production. In the north-eastern of Portugal, small ruminants farming have great economic and social importance. Typical farm uses traditional methods of animal production, carrying out year-round roaming grazing. Until now there is scarce information on the seroprevalence of SRLVs in Portugal, neither about risk factors to these type of farming system.



## OBJECTIVES

Quantify the seroprevalence and identify risk factors associated with small ruminant lentivirus infection in the north-eastern of Portugal.

## MATERIALS AND METHODS

A SRLVs seroprevalence study was performed in the north-eastern of Portugal based on a stratified sample proportional to the number of sheep and goats per municipality. The small ruminant farmers were randomly selected and were submitted to a survey to obtain information about the farm system. Between 14 and 19 blood samples were collected per farm according to the proportion with the number of animals in each farm. To this study we received samples from sheep farms, goat farms and mixed farms. In mixed farms only blood samples were collected from sheep.

## RESULTS

The data obtained in this study are presented in the following table.

	% Farms (+)	% Animals (+)
Sheep flock	81,6% (31/38)	35,1% (281/801)
Goat flock	100% (12/12)	62,1% (131/211)
Mixed flock	100% (7/7)	-
<b>Total</b>	<b>87,7% (50/57)</b>	<b>40,7% (412/1012)</b>

From a total 1012 samples, collected from 57 farms of which 100% of goat farms and mixed farms were positive for SRLVs, while sheep farms were 81.6%.

Global seroprevalence was 40,7%. In goats seroprevalence was 62,1% and in sheep was 35,1%.

Of the risk factors analyzed, Chi-square test revealed that frequent contact among goat and sheep ( $p < 0,001$ ) and frequent contact among small ruminants flock ( $p = 0,001$ ) were associated with SRLVs infection.

## CONCLUSIONS

A high seroprevalence of SLRVs has been demonstrated in farms in the north-eastern of Portugal. It was also shown that individual and farm seroprevalence is higher in goats than in sheep. With this preliminar results, we conclude that SLRVs is a serious problem on in this region. This way, information campaigns should be carried out to small ruminant farmers about the existence of this group of viruses and its consequences to animal's health and to farm's economy. We believe that government authorities should promote voluntary control and eradication programs to reduce the prevalence of this disease in small ruminant farms in Portugal.

However we present preliminary data and therefore should be interpreted with caution. Further studies should be conducted.

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