

Laboratory results of swine samples from wean to finish pigs with respiratory symptoms



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INTRODUCTION

Respiratory diseases are commonly found in wean to finish pigs. The causative pathogen of these diseases is hard to diagnose only by clinical observations and macroscopic lesions. Therefore, in order to determine the etiologic agents involved in the infection, basic and complementary diagnostic tools are required¹.

In many cases, early diagnosis errors contribute to ineffective action plans resulting in increased costs of production².

This article summarizes laboratory results of animal samples sent in from all regions of Brazil.

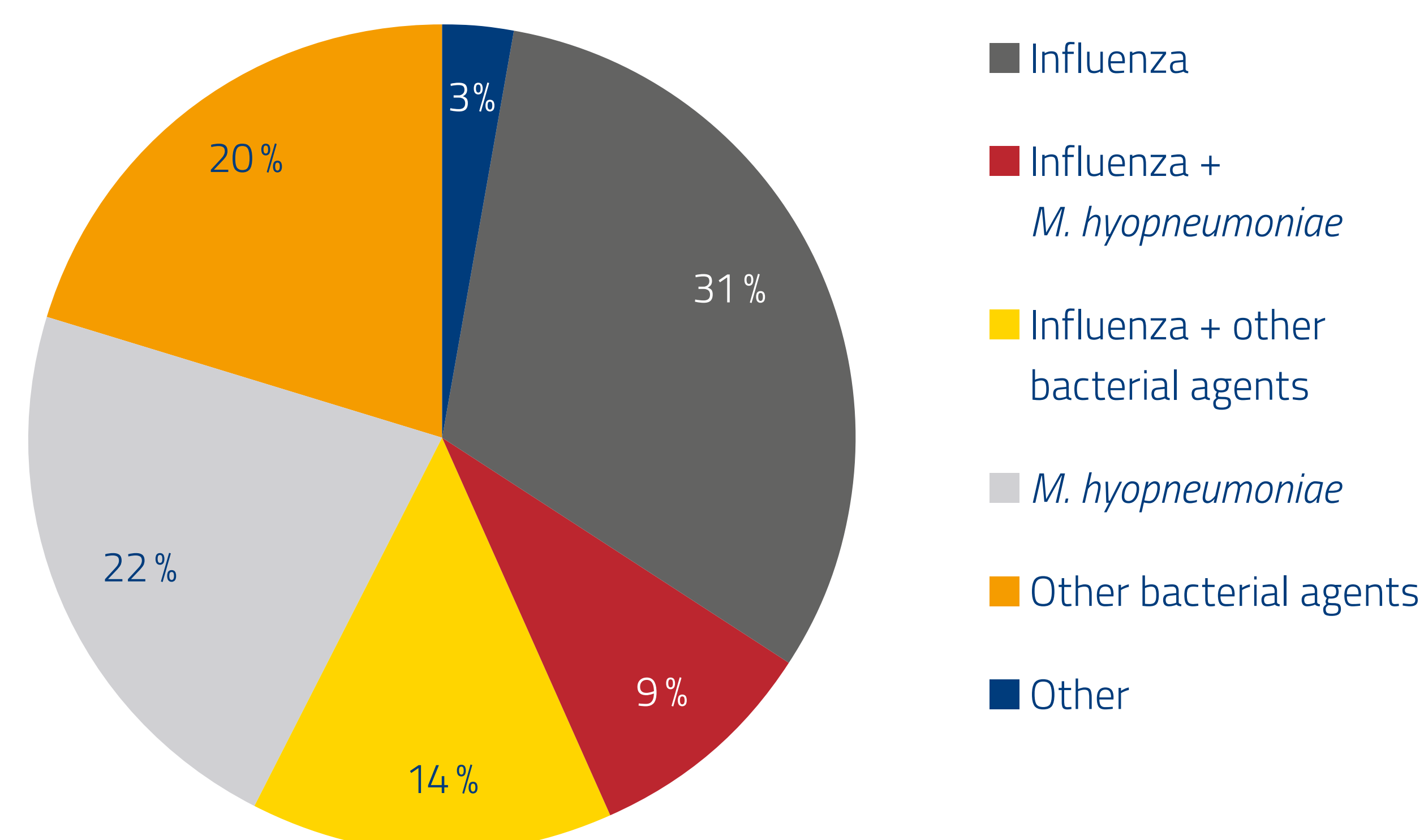
MATERIALS AND METHODS

These data refer to samples from 64 animals out of 21 herds with respiratory symptoms between 90 and 170 days of age, undergoing diagnostics in the reference diagnostic centers in Brazil during the year 2015 (unpublished data). The tests used were histopathology, immunohistochemistry (IHC), PCR and bacterial isolation.

RESULTS

The results of the histopathological analysis, IHC, bacterial isolation and PCR demonstrate the involvement of several infectious agents in most cases of respiratory problems in pigs. Of the 64 cases investigated, 14 cases (21.8%) showed lesions suggestive for *Mycoplasma hyopneumoniae* (Mhvo). In 20 cases (31.2%) lesions were found suggestive for Influenza virus. An association of Mhvo with Influenza virus was found in 6 cases (9.3%). Characteristic lesions involving Influenza virus in combination with other bacteria were found in 9 cases (14%). Bacteria were found in 13 cases (20%), and involvement of Circovirus in 2 cases (3%). The main identified agents and associations are shown in Figure 1.

Figure 1: Prevalence of pathogens identified in 90 to 170 days old animals with respiratory symptoms



DISCUSSION AND CONCLUSION

Our results demonstrate that the major infectious agent involved in respiratory symptoms is Influenza virus. Alone or in combination with other bacteria, Influenza was found in 54% of cases analyzed. This demonstrates the need for targeted laboratory investigation to confirm the clinical suspect, since most of the cases were presented as *Mycoplasma hyopneumoniae* prime suspects.

Diagnostic tools and correct interpretation of laboratory results are of special importance in the improvement of the professional pig farming. Most respiratory diseases have a complex etiology in which the correct diagnosis will depend on the targeted use of different diagnostic tools, associating history of the herd and results from clinical examination, necropsy and laboratory analysis.

Professionals working in the field perform many activities related to clinical and pathological diagnosis, like collecting material for laboratory tests. The training of veterinarians to implement the diagnostic tools and methodologies available is very important to achieve accurate results. Furthermore, time for discussion of cases encountered in the field, reporting observations and considerations can enrich the work and contribute to a more accurate final diagnosis.

REFERENCES

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