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M. hyosynoviae arthritis

Introduction

Mycoplasma hyosynoviae produces an arthritis in pigs that has been seen in the USA and, to a lesser extent, across Europe. In Europe a severe bursitis has also been associated with infection by this mycoplasma.

Epidemiology and pathogenesis

This mycoplasma is commonly found in nasal and pharyngeal secretions of sows and this micro-organism is not normally transferred to piglets until they are a month old. In some herds a naso-pharyngeal infection is experienced before 12 weeks of age and the rate of spread between young pigs is variable.

During the septicaemic phase joint infection can occur – many joints do not develop lesions of arthritis but in other joints an acute arthritis develops.

Clinical signs and lesions

The arthritic disease caused by M. hyosynoviae typically occurs between 12-24 weeks of age. Lameness appears quickly and more than one limb may be affected. Affected pigs lose their appetite and weight and are reluctant to stand and in some instances will not get up. Joint swelling is rarely seen.

The acute phase lasts for up to 10 days and thereafter the severity of the lameness decreases with some pigs being lame for several weeks. Morbidity can be up to 50% and mortality is low and is usually related to a complicated suppurative arthritis.

The lesions centre upon the synovial membranes in the joints which become swollen, oedematous and hyperaemic. The volume of synovial fluid increases. In the chronic stages articular cartilage damage occurs.

Diagnosis, treatment, prevention

Any outbreak of lameness in 10-20 week old pigs that is not responding to penicillin is likely to be M. hyosynoviae arthritis and this can be confirmed by post mortem examination.

Treatment is with injectable tylosin, lincomycin or tiamulin.

Prevention includes the selection of breeding stock with good leg structure and allowing bought in breeding stock to adjust to their new environment.