

## 46 – Porcine circoviruses III

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## Diagnosis of PMWS

A diagnosis of PMWS should be considered if the following criteria are met:

- Growth, retardation and wasting often accompanied by laboured breathing and enlarged inguinal lymph nodes and sometimes jaundice.
- Moderate to severe characteristic histopathological changes in lymphoid tissues.
- Moderate to high amounts of PCV 2 viruses in lymphoid and other tissues.

## Diagnosis of PDNS

A diagnosis of PDNS should be considered if the following criteria are met:

- The presence of haemorrhagic and necrotising skin lesions principally around the pig's rear end and/or swollen, pale kidneys with generalised cortical petechiae.
- The presence of systemic necrotising vasculitis and a necrotising, fibrinous glomerulonephritis.

## Diagnosis of reproductive disease

A diagnosis of PCV 2 associated reproductive disease should be considered if the following criteria are met:

- Late term abortions and stillbirths, sometimes with foetal heart hypertrophy.
- The presence of foetal heart lesions characterised by extensive fibrosing and/or necrotising myocarditis.
- The presence of high amounts of PCV 2 in myocardial lesions and other foetal tissues.

## Immunity

Colostrum antibody protection declines in the suckling and nursery periods and then active seroconversion occurs. PMWS is rarely seen in pigs under a month old suggesting maternal antibody protection is present.

Vaccination with a PCV 2 vaccine stimulates immunity 2-3 weeks later. It would appear that PCV 2 persists in the blood and tissues of subclinically infected animals in the presence of high antibody titres. An insufficient antibody response is linked to increased viral multiplication, severe lymphoid lesions and ultimately the development of PMWS and possibly PDNS.

## Prevention and control

PMWS is a multifactorial disease but it can be controlled by the use of PCV 2 vaccines. Vaccination improves weight gain, decreases mortality, reduces medication costs, reduces viral load and reduces PMWS lesions. In sows vaccination increases fertility and reduces returns to service.