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## Pathogenesis

Rotaviruses replicate in the cytoplasm of villous epithelial cells in the small intestine and this results in villous cell dysfunction and death, lysis or desquamation of infected cells and villous atrophy. The extent of the villous atrophy is a key factor in determining the severity of clinical disease. Villous atrophy tends to be more severe and extensive in young pigs, hence they often have the severest clinical disease.

Sometimes rotavirus is one part of a co-infection.

## Lesions

Lesions are only seen in the small intestines and arise as a consequence of the process described above.

The distal half or so of the small intestine is thin walled, flaccid and dilated with a large volume of watery, usually yellowish, flocculent contents. With time the dilation reduces and a more normal appearance appears. Lesions are less severe in pigs over three weeks of age.

## Treatment

There are no suitable therapeutic agents so treatment focuses on supportive and fluid replacement therapies. Sometimes concurrent antibiotic therapy is given to control secondary bacterial infections. Electrolyte solutions containing glucose and glycine can be given ad libitum.

## Prevention

Prevention centres around management practice, such as not mixing pigs of different ages, and exposing replacement gilts to older sows in the herd.

Immunoprophylaxis can also be used.