Reovirus Infections

Cause
Reovirus infections, also know as viral arthritis/tenosynovitis is caused by an avian reovirus.

Transmission
The virus may be transmitted by droppings from bird to bird. Egg transmission is also a factor when breeder flocks become infected during egg production. Reovirus is a common inhabitant of the intestines of birds and not all strains are pathogenic.

Species affected
Chickens, turkeys and possibly pheasants are natural hosts.

Clinical signs
The first signs of reovirus infection are usually observed in broiler breeder chickens between 6 and 10 weeks of age. The birds are reluctant to walk and when forced up have a painful, trembling gait. A distinct swelling of the tendons of the shanks and also above the hock joint can be observed. Affected birds have malpositioned feathers, especially on the wings.

Internal lesions
The hock joint may be somewhat swollen, but usually not as severely as with Mycoplasma synoviae or Staphylococcus infections. Upon opening the legs the tendons usually appear discolored, brown or blood-tinged, with straw coloured fluid between them.

Ruptured tendons may occur and, in older broiler breeders (29-30 weeks old), one may feel a hard scarry knot in the tendon above the hock joint. When the infection is complicated by Ms or Staphylococcus the fluid may appear yellow and creamy. In commercial egg-laying breeds of chickens, the disease is not as common as in broiler breeders and broilers.

Diagnosis
Leg problems in broilers or broiler breeders associated with swelling of shank tendons or tendons above the hock joint sometimes accompanied by ruptured tendons, are indicative of reovirus infections.
A positive blood test with the agar gel precipitation (AGP) test is of some value as an indication of exposure to reovirus, but does not constitute proof of diagnosis. Histopathological examination of affected tissues and isolation of virus from such tissues are needed for a definite diagnosis.

Treatment and control
Reovirus infection cannot be treated successfully, but antibodies are of help in preventing secondary bacterial infections, particularly Staphylococcal infections.
Vaccination of broiler breeders with certain live and inactivated vaccines to ensure maternal immunity in their offspring appears to be of benefit to the birds themselves.