

Conditions for Rejection of Poultry at Post Mortem

Tumours in Poultry

Post Mortem Disposition



Figures 1-2: Marek's disease: Herpes virus with some or all of the following findings – enlargement of feather follicles, paralysis of wings and legs, eyes affected, seen as opacity in the iris, tumour lesions in liver and spleen.

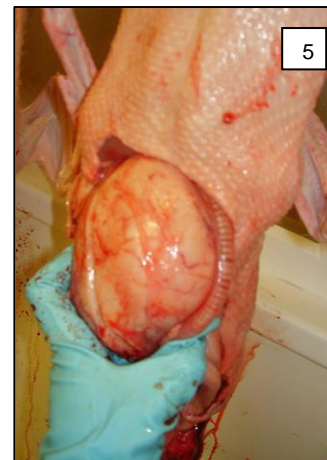
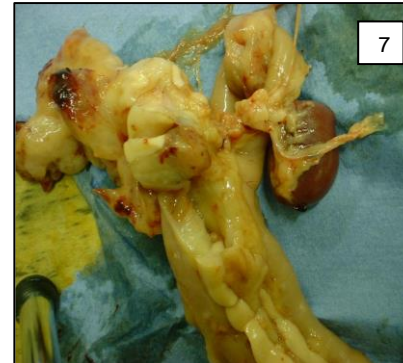
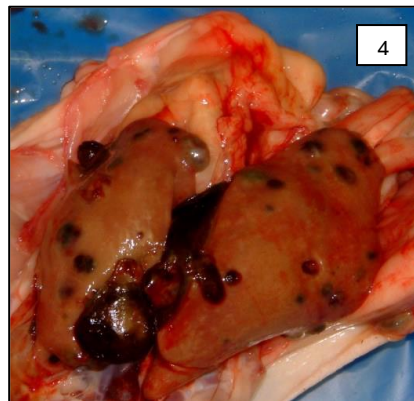
Figure 3: Large abdominal tumour linked to the intestinal tract in a broiler.

Figure 4: Haemangioma in liver – partial rejection.

Figure 5: Large lipoma in a duck.

Figure 6: Squamous cell carcinoma in a laying hen. Note the crater-like ulcers usually with secondary infection present. Skin only is affected.

Figure 7: Multiple tumours in the viscera.



FSS Responsibilities

Post mortem disposition

Total rejection: in most of the cases.

Partial rejection: if the tumour is localised and encapsulated.

Marek's disease: Affected carcasses are condemned in the extensive cutaneous form and in the visceral form. Localised skin lesions may be trimmed off and the carcass passed as fit for human consumption.

Average rejection levels in GB

Poultry: 0.019%

Recording of the condition

The condition must be recorded on the "Tumours/nodules" entry under Post Mortem Inspection on OWS.

Further Information

Definition

Abnormal tissue growth in which the multiplication of cells is uncontrolled and progressive. They are generally classified as benign (encapsulated, highly differentiated cells), and malignant (infiltrative, undifferentiated cells).

Marek's disease is the most commonly encountered tumour-causing condition in chickens. Live birds may exhibit paralysis of the wings and legs. Carcasses and offal may exhibit tumours of the feather follicles, iris and viscera.

Squamous cell carcinoma, fibrosarcoma, fibromyoma and avian leukosis are uncommon in the UK.

Causes

Multiple, although viral origin is the most common in domestic poultry. Some of the most common types of tumours found in poultry are:

Marek's Disease: Caused by a herpes virus which is ubiquitous.

Avian Leukosis: Caused by Avian Leukosis Virus. Lesions are similar to and difficult to distinguish from those seen with Marek's disease.

Haemangioma: Benign tumour that tends to be present at hatch. Caused by congenital overgrowth of blood capillaries.

Squamous cell carcinoma: Unknown cause, only affects the skin. Secondary infection common in affected areas.

Fibrosarcoma, fibromyoma: Also virus-induced affecting connective tissue and muscle.

Avian Leukosis Complex

A complex of viral diseases with various manifestations : – “LEMO”

- **L**ymphoid - seen as liver spleen and cloaca Nodular or Diffuse lesions
- **E**rythroid - seen as enlarged liver spleen cherry red in colour
- **M**yeloid - seen as diffuse form affecting liver spleen and kidneys mottled or granular in appearance
- **O**steopetrosis thickening of long bones.

Remarks/Consequences

It is impossible to distinguish between benign and malignant tumours on gross examination therefore, unless the lesions observed are clearly demarcated and encapsulated, total rejection is appropriate.

What is the data on rejects used for?

The majority of these conditions are rare, and the incidence would be expected to be low. If numbers of rejects increase for tumours, this information allows the company and veterinarians involved to evaluate the potential for Marek's Disease involvement. Marek's is a condition easily controlled with vaccination if necessary and is also influenced by the level of cleaning and disinfection achieved on farms between crops.

Acknowledgments to:

Lynne Dunn (SMHI), Asier Pagazaurtundua (VM), British Veterinary Poultry Association for the development of the card.

Pictures: Lynne Dunn; Asier Pagazaurtundua, Jose Luis Lopez (OV) and David Hawkins (MHI)