Fowl Cholera / Pasteurellosis (FC)

Fowl Cholera / Pasteurellosis

- This is a serious, highly contagious bacterial disease of poultry birds caused by the bacterium Pasteurella multocida in a range of avian species including chickens, turkeys, and water fowl.
- The disease (FC) is seen worldwide and was one of the first infectious diseases to be recognised, by Louis Pasteur in 1880.

The Disease:

- Morbidity and mortality in FC may be up to 100%.
- Route of infection is oral or nasal with transmission via nasal exudate, faeces, contaminated soil, equipment, and people.
- The incubation period is usually 5–8 days.

The Bacterium:

- The causative bacterium Pasteurella multocida is easily destroyed by environmental factors and disinfectants, but may persist for prolonged periods in soil.
- Reservoirs of infection may be present in other species such as rodents, cats, and possibly pigs.
- Predisposing factors include high density and concurrent infections such as respiratory viruses (e.g. NDV, IBV aMPV etc).

Signs of Fowl Cholera

- Depression.
- Ruffled feathers.
- Loss of appetite.
- Diarrhoea.
- Coughing.
- Nasal, ocular and oral discharge.
• Swollen and cyanotic wattles and face.
• Sudden death.
• Swollen joints.
• Lameness.
• Swollen wattles in FC

Post-mortem Lesions of Fowl Cholera

• Sometimes none, or limited to haemorrhages at few sites.
• Enteritis.
• Yolk peritonitis.
• Focal hepatitis (Necrotic, pin head sized white foci on surface of liver).
• Cellulitis of face and wattles.
• Purulent arthritis (pus in joints)
• Necrotic foci on liver surface

Treatment for Fowl Cholera

• The disease can be treated with different antibiotics like sulphonamides, tetracyclines, erythromycin, streptomycin, penicillin.
• The disease often recurs after medication is stopped, necessitating long-term or periodic medication.
Prevention of Fowl Cholera

- Vermin are a significant risk for carrying and introducing Pasteurella.
- Stress levels in the flock should be minimised. As stressed birds can have a poor immune system, this makes the individuals more susceptible to infection.
- Vaccination can be used as a preventative measure or, under certain circumstances, in the face of a severe outbreak.
- Carcasses of any dead birds should be removed from the house as soon as possible.
- Other animals, particularly pigs, should be kept well away from poultry flocks.

Vaccination for Fowl Cholera

- Vaccination schedule depends on history of Fowl Cholera at that particular farm.
- General schedule is –
  - First dose in 8th week and second dose in 12th week.
  - However if outbreak is at early age, first dose may be given even at four weeks of age.
  - Similarly, if outbreak is reported in laying phase in earlier flock, the vaccination schedule will be first dose in 12th week and second dose in 17th week.
  - However, a standard vaccine may not work to expectation in some farms affected with FC, because there could be emergence of certain variant strains of Pasteurella multocida bacterium in the outbreaks seen. In such cases, we need to isolate and identify the variant of bacterium. This can then be added to the vaccine to be specifically manufactured for that particular locality. Such customised vaccines give much better results in prevention of FC on farms in the concerned area.