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LAMPIRAN

Lampiran 1. English Ver.

Anatomical Pathological Overview of the Disease Chicken layer with Chronic Respiratory Disease (CRD)

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ABSTRACT: Causing factor Mycoplasma gallisapticum is a pathogen that causes chronic respiratory discomfort in birds. Body weight, feed efficiency, higher embryo mortality, and carcass quality were all lost as a result. The goal of this disease review is to educate readers about CRD in order to reduce the spread of the illness among animals. The mucosa of the respiratory organs exhibits apparent pathological alterations, the most recognizable of which is inflammation and thickening of the air sacs (air sacs). Clinical symptoms and pathological abnormalities might be used to make a diagnosis. Proper biosecurity, sanitation, and housing management can be used to prevent and treat CRD disease.

Keywords: Chicken, chronic respiratory disease

I. INTRODUCTION

Chronic Respiratory Disease (CRD) is a chronic infectious disease in chickens caused byMycoplasma gallisepticum which is characterized by respiratory disorders, exudate discharge from the nasal cavity, coughing, sneezing and redness of the mucous membranes (conjunctiva) of the eyes. Chickens of all ages can be attacked by CRD. Under certain conditions it can cause acute respiratory problems, especially in young chickens, while the chronic form can cause a decrease in egg production. (Direktorat Kesehatan hewan, 2014).

The economic impact that can be caused byMycoplasma gallisepticum include decreased egg production and quality, low hatchability due to high embryo mortality and rejection of old birds, decreased feed efficiency, increased mortality and medical costs. In addition, the quality of slaughtered poultry carcasses also decreased (Karthiket *et al*.,2018). Mycoplasma gallisepticum can also spread rapidly in flocks of birds. CRD disease transmission can be horizontal or vertical (Hassanet *et al*., 2016).

Diagnosis is based on history, clinical signs and symptoms, post mortem findings (Karthiket *et al*., 2018). Pathological diagnosis is a strategic step taken to find out or analyze a disease in general and specific. This is because there are similarities in the clinical symptoms of several diseases. Pathological diagnosis makes it easier for researchers to act (Widianigrumet *et al*., 2022).

III. METHOD

Observations were carried out at the Hasanuddin University Teaching Animal Hospital with a physical examination and pathological changes in the layers taken from the Ablam traditional market. At the clinical pathology stage, identification of poultry diseases was carried out based on visible pathological changes. then a physical examination of the chicken was carried out

before necropsy was carried out to see the clinical signs of its external appearance. Then a necropsy was performed on the chicken to see pathological changes. Observation of pathological changes found by taking documentation and using the literature as a guide in identifying poultry diseases.

IV. RESULTS AND DISCUSSION

The chicken is seen to be snoring and body parts tremor, it is difficult to breathe, a thick discharge comes out of the sinuses, the condition of the feathers is a bit dull, the chicken looks lethargic. Based on the ante-mortem examination, it was suspected that the chicken had respiratory problems. Then a post-mortem examination was carried out by means of necropsy.

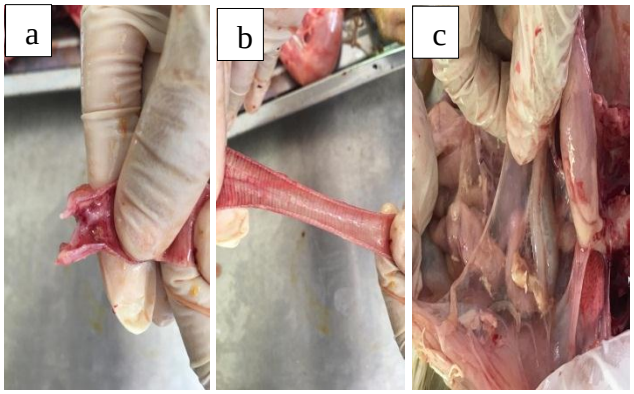

Figure 1. Clinical findings at necropsy. a. The trachea is inflamed, b. The larynx is inflamed. c. Airsacculitis murky

Changes that occur during necropsy include inflammation of the respiratory tract (larynx, trachea, bronchi), brownish color of the lungs, formation of fibrin tissue in the lining of the liver (perihepatitis) and lining of the heart (pericardium), the air sacs look cloudy and thickened. According to Ley and Yoder (2008) The most specific anatomical pathological changes for CRD are inflammation of the trachea and air sacs, especially in the abdominal cavity, which is calledairsacculitis, therefore this disease is also calledAirsac Disease. And in severe cases the mucus becomes yellow and the consistency is like cheese. there is a thin or thick layer of white fibrin covering the heart, liver and air sacs (Retnoet al., 2015).

Infection from CRD is the first time the bacteria will enter the respiratory tract organs and stick to the mucosa thenMycoplasma gallisepticumas a disease agent, CRD will damage its cells, causing inflammation and increasing blood flow to the air sacs. Air sacs are the right medium for the growth and reproduction of bacteria Mycoplasma gallisepticum. (Majumder and Silbart, 2016). Chronic respiratory disease is often confused with several other diseases such as heart diseaseNewcastle Disease (ND) andInfectious Bronchitis (IB) (Retnoet *et al*., 2015).

V. CONCLUSION

CRD disease is a disease that attacks the respiratory system of chickens and is chronic. Based on the results of physical examination and necropsy, the chicken was diagnosed with the diseaseChronic Respiratory Disease (CRD)., but must be confirmed by laboratory tests to make the diagnosis.

Respiratory Disease (CRD) is a bacterial infection disease in chickens caused by Mycoplasma galisapticum. Infected

chickenMycoplasma galisapticum causing respiratory problems, decreased ration consumption so that body weight is below standard or experiencing growth disturbances. The mortality rate depends on the presence or absence of complications from other diseases.

VI. SUGGESTION

To confirm the diagnosis, it is necessary to carry out laboratory tests, such as bacterial culture methods and biochemical tests as confirmatory tests. Prevention can be done by doing cage sanitation. Setting the temperature and humidity, controlling the chicken population and providing feed with good nutrition.

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RIWAYAT HIDUP

Penulis dengan nama lengkap Erwin, lahir pada tanggal 8 Januari 1999 di Dusun Salopi Desa Binangakaraeng kabupaten Pinrang , Sulawesi Selatan, merupakan anak dari pasangan Ayahanda Bakkarang dan Ibunda Hadian, serta saudara dari adinda Harianti. Penulis menempuh pendidikan dari TK kemudian melanjutkan ke jenjang sekolah dasar di SDN 185 Kanipang lalu ke tingkat sekolah menengah di SMPN 2 Lembang. Penulis menyelesaikan pendidikan di SMAN 8 Pinrang pada tahun 2017 kemudian diterima di Program Studi Kedokteran Hewan, Fakultas Kedokteran Universitas Hasanuddin pada tahun yang sama melalui jalur SNMPTN. Selama Perkuliahan penulis aktif di organisasi internal kampus yakni Mapala anoa (sekarang UKM Pecinta Alam Dan Satwa Liar Anoa). Himpunan Mahasiswa Kedokteran Hewan (HIMAKAHA) FK-UH dan menjabat sebagai ketua Umum PHO HIMAKAHA selama dua periode, 2020-2021 dan Ketua umum Mapala ANOA pertiode 2021-2023. Pada bidang akademik, penulis pernah menjabat sebagai koordinator Asisten Lab. Reproduksi ternak,. Penulis juga merupakan penerima beasiswa Bidikmisi pada jenjang s1. Penulis melaksanakan tugas akhir strata sarjana dengan judul penelitian "**Deteksi Brucellosis Dengan Metode Rose Bengal Test (RBT) Dan Complement Fixtation Test (CFT) Pada Sapi Betina Diwilayah Kecamatan Duampanua Kabupaten Pinrang"** dan tugas akhir strata profesi dokter hewan dengan judul "**Gambaran Patologi Anatomi Penyakit Chronic Respiratory Disease (CRD) Pada Ayam Broiler"**