

***THE PATHOGNOMONIC LESIONS OF PULMONARY PATHOLOGICAL
ANATOMY IN LAYER CHICKENS WITH TORTICOLLIS AND CURLED
TOE PARALYSIS DUE TO AVIAN INFLUENZA VIRUS***

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ABSTRACT

Avian influenza which is caused by avian influenza virus (AIV) type A is one of the most harmful poultry diseases and inflicts financial loss in many of layer farms in Indonesia. The infection of AIV in chickens could induce clinical signs, such as torticollis and curled toe paralysis. The purpose of this research is to find the pathognomonic lesions of pathological anatomy in the lungs of layer chickens with torticollis and curled toe paralysis due to AIV. Thirteen layer chickens showing sign of torticollis and curled toe paralysis were used in the present study. These chickens have been tested with immunopathological immunohistochemistry of streptavidin-biotin test and showed the positive result. Qualitative descriptive analysis was conducted towards lungs of necropsied chickens. Results of the present study indicated that pathological anatomy lesions observed in the lungs were swelling, congestion, petechial and linear hemorrhages. The lungs looked pale with white reddish discoloration. The results prove that the pathological anatomy lesions in the lungs are pathognomonic and can be used for the affirmative of AIV diagnosis.

Keywords: anatomic pathologic pathognomonic, avian influenza virus, chicken, lungs, torticollis and curled toe paralysis

**LESI PATOLOGIS ANATOMIS PATOGNOMONIK PARU-PARU PADA
AYAM PETELUR YANG TERINFEKSI FLU BURUNG DENGAN
GEJALA KLINIS *TORTICOLLIS* DAN *CURLED TOE PARALYSIS***

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INTISARI

Avian influenza yang disebabkan oleh *avian influenza virus* (AIV) atau flu burung tipe A merupakan salah satu penyakit unggas yang cukup signifikan merugikan peternakan ayam petelur di Indonesia. Pada ayam terinfeksi AIV dapat menyebabkan gejala klinis, *torticollis* dan *curled toe paralysis*. Penelitian ini bertujuan untuk mengetahui dan menentukan gambaran lesi patologis anatomis patognomonik pada paru-paru ayam petelur dengan gejala klinis *torticollis* dan *curled toe paralysis*. Pada penelitian ini digunakan 13 ekor ayam yang menunjukkan gejala klinis *torticollis* dan *curled toe paralysis* kemudian setelah diuji imunopatologis imunohistokimia *streptavidin-biotin* positif terinfeksi AIV. Ayam dinekropsi, kemudian paru-paru diambil, diamati lesi patologis anatomis, difoto, dan didokumentasi. Paru-paru dianalisis secara deskriptif kualitatif dengan menentukan adanya gambaran lesi patologis anatomis patognomonik. Hasil penelitian ini membuktikan, bahwa pada semua paru-paru terlihat adanya gambaran lesi patologis anatomis berupa pembengkakan paru-paru, kongesti berat, hemoragis berbintik dan linear. Paru-paru juga terlihat pucat berwarna merah keputihan. Disimpulkan, bahwa lesi patologis anatomis pada paru-paru tersebut bersifat patognomonik dan dapat digunakan dalam peneguhan diagnosis AIV pada kasus-kasus di lapangan.

Kata kunci: AIV, ayam, paru-paru, patologis anatomis patognomonik, *torticollis* dan *curled toe paralysis*