

عنوان مقاله:

Effect of different herbal preparations on experimental viral respiratory complex of broilers: clinical, pathological and ciliary activity aspects

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خلاصه مقاله:

Introduction: Despite the extensive use of herbal preparations for treatment of viral respiratory diseases in poultry, few studies have analyzed the effectiveness of these products. This study aimed to evaluate the effects of three different herbal respiratory symptom relieving agents in broiler chickens experimentally infected with H₉N₂ avian influenza (AI) and infectious bronchitis (IB) viruses. **Methods:** A total of ۱۷۵ broiler chickens were randomly assigned into ۵ equal groups. Negative control (NC) group remained intact while others received H₉N₂-AI and IB viruses. Treatment groups (G₁-G₃) but not positive control (PC) birds were treated with three different herbal agents containing menthol. Clinical and pathological aspects were evaluated during the experiment. **Results:** Administration of these agents to challenged chickens not only did not notably decrease clinical severity, gross and histopathological lesions, but also markedly increased mortality rate in treated groups. In dead cases, cast/plug formation was a prominent feature in the trachea. Treatment with herbal agents induced an increase of more than twofold in the number of goblet cells compared to PC group. Significant ciliostasis was observed in all challenged groups regardless of treatment, while ciliary activity was not changed statistically in comparison with the mean values of PC. **Conclusion:** In this study administration of herbal preparations adversely affected the tracheal epithelium via enhancement of goblet cell hyperplasia. It appears that hyper-secretion of mucosa along with ciliary incompetence causes mucus stagnation followed by tracheal or bronchial obstruction and death. These findings necessitate cautious use of these products

کلمات کلیدی:

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