



## A serosurvey of Avian influenza virus (H9N2) antibodies in turkey flocks of Gilan province.

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**Objectives:** Influenza virus infections can cause respiratory and systemic disease of variable severity and also result in economic losses for the turkey industry. Several subtypes of influenza can infect turkeys. Decreased efficacy of production and increased mortality rate are observed in affected flocks. Serological assays are useful tools to evaluate immune status of birds. Hemagglutination inhibition (HI) test is the most commonly used serologic assay in diagnostic laboratories.

**Material and Methods:** In order to determine AIV (H9N2) antibody titers in turkey flocks of Gilan province, 804 blood samples were collected from 16 turkey flocks of Gilan province from April 2016, through March 2017, and subjected to HI. The results were recorded and analyzed using version 16.0 of SPSS statistical software.

**Results:** Mean antibody titers for AI was 7.9, minimum antibody titers was 3 and peak of antibody titers was 11, also coefficient of variation (CV%) of antibody titers was 16%. There were some differences in antibody titers status of birds between different seasons of year.

**Conclusion:** The findings of this study not only reveal high prevalence of AIV (H9N2) antibodies in turkey flocks in Gilan province, north of Iran, but also emphasize the importance of routine surveillance for AIVs in different avian species as part of an early warning plan for the prevention of AI outbreaks in Iran.

**Keywords:** Avian influenza, HI, Turkey, Gilan