

## **Abstract**

Avian polyomaviruses are small, nonenveloped viruses from family *Polyomaviridae*, which can cause acute infection with high mortality of infected birds. In contrast with other polyomaviruses, avian polyomaviruses do not share similar pathogenesis, because most of them do not cause acute diseases. The main point of this work is to summarize available information about avian polyomaviruses and to compare them to each other. This work also compares avian polyomaviruses with mammalian polyomaviruses. The primary focus is made on genome organization, structure and function of viral proteins, but also on pathogenesis and epidemiology of avian polyomaviruses. In conclusion, even if avian polyomaviruses share common signs with other polyomaviruses, they have different conserved sequences, host specificity and pathogenicity. Summary of current knowledge about avian polyomaviruses could help to understand the importance of this newly established genus in the field of polyomavirus research.

**Key words:** avian polyomaviruses, taxonomy, genome, viral proteins, pathogenesis