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RELATIONSHIP BETWEEN DIFFERENT ENTERIC VIRAL INFECTIONS AND THE OCCURRENCE OF DIARRHEA IN BROILER FLOCKS IN JORDAN

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The aim of this study is to determine if enteric viruses are the cause of diarrhea in broiler flocks in Jordan. Intestinal content samples were collected from 101 broiler flocks from different regions of Jordan to detect the presence of astrovirus, coronavirus, reovirus, and rotavirus, by using reverse transcriptase polymerase chain reaction (RT-PCR). Forty six of these flocks were clinically healthy with no enteric disease and the other 55 flocks were clinically suffering from diarrhea. The samples were collected between 5 and 16 days of age. The results showed that 79% of these flocks were infected with one or more of the above enteric viruses. Coronavirus was the most common virus, detected in 56.4% of these flocks, with astrovirus in 29.7% of the flocks, and rotavirus (9.9%) and reovirus (5.6%) being the least common. None of these flocks were found to be infected with all four viruses, but one of the flocks was found to be infected with astrovirus, coronavirus, and rotavirus simultaneously. Individual infection was noted with astrovirus, coronavirus and rotavirus but not with reovirus, whereas all flocks infected with reovirus were also infected with coronavirus. There was no statistical evidence to link these viruses as the main cause of diarrhea in the flocks tested. This is the first study in Jordan to detect all of these viruses and to correlate their presence with diarrhea in chicken flocks.

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