



# Novel H7N9 Bird Flu and its Significance for Patients with Cerebrovascular Stroke

## *Yeni Bir H7N9 Kuş Gribi ve Serebrovasküler Hastaların Dikkat Etmesi Gerekenler*

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Dear Editor;

Influenza is a well-known, acute respiratory tract infection that can be seen around the world. Emerging influenza is the present global consideration. Novel H7N9 bird flu is an emerging infectious disease which had its first outbreak in China (1,2). This new infection is an acute respiratory tract infection with additional systematic presentations (3). There has been fear of a worldwide outbreak of this infection (4). As a new infectious disease, it is also of concern to neurology. Here, we discuss the clinical inter-relationship between the infection and cerebrovascular stroke.

The novel H7N9 bird flu virus can affect several organs. In terms of brain involvement, there is a report in an animal model that the infective particle can be seen in brain (5). The concern on the deterioration of brain function in case with underlying cerebrovascular stroke can be raised. Based on the available data, however, there is still no report on the infection among the patients with cerebrovascular stroke. Nevertheless, several underlying diseases with cerebrovascular underpinnings, such as diabetes, are already accepted as the risk for severe H7N9 bird flu (6). At present, it is accepted that the patients with cerebrovascular stroke has to take special prevention for H7N9 bird flu.

Another interesting issue pertains to the neurological complications of influenza. Several complications are described including encephalopathy, seizure, and so on (7). For the H7N9 bird flu, the brain damage, encephalopathy is also described (1,2). Focusing on cerebrovascular stroke, Muhammad et al. (8) found that "Influenza virus infection triggers a cytokine cascade that aggravates ischemic brain damage and increases the risk of intracerebral hemorrhage after tissue plasminogen activator treatment." This leads to the consideration whether the novel H7H9 bird flu can trigger the occurrence of cerebrovascular stroke. Further studies on this topic are warranted.

In conclusion, even though there is no clinical evidence of H7N9 bird flu among the patients with underlying cerebrovascular stroke, it is no doubt that special attention and care to this group of patients is needed. (Turkish Journal of Neurology 2014; 20:63)

Regards,

**Key Words:** Influenza, bird flu, stroke

**Anahtar Kelimeler:** İnfluenza, kuş gribi, inme

### References

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