Thoracic computerized tomographic (CT) findings in 2009 influenza A (H1N1) virus infection in Isfahan, Iran

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**Thorax, Computed Tomography (CT), Influenza A Virus, H1N1 Subtype**

**BACKGROUND:** Pandemic 2009 H1N1 influenza A virus arrived at Isfahan in August 2009. The virus is still circulating in the world. The abnormal thoracic computerized tomographic (CT) scan findings vary widely among the studies of 2009 H1N1 influenza. We evaluated the thoracic CT findings in patients with 2009 H1N1 virus infection to describe findings compared to previously reported findings, and to suggest patterns that may be suggestive for 2009 influenza A (H1N1) in an appropriate clinical setting.

**METHODS:** Retrospectively, the archive of all patients with a diagnosis of 2009 H1N1 influenza A were reviewed, in Al-Zahra Hospital in Isfahan, central Iran, between September 23rd 2009 to February 20th 2010. Out of 216 patients with confirmed 2009 influenza A (H1N1) virus, 26 cases with abnormal CT were enrolled in the study. Radiologic findings were characterized by the type and pattern of opacities and zonal distribution.

**RESULTS:** Patchy infiltration (34.6%), lobar consolidation (30.8%), and interstitial infiltration (26.9%) with airbronchogram (38.5%) were the predominant findings in our patients. Bilateral distribution was seen in 80.8% of the patients. Only one patient (3.8%) showed ground-glass opacity, predominant radiographic finding in the previous reports and severe acute respiratory syndrome (SARS).

**CONCLUSIONS:** The most common thoracic CT findings in pandemic H1N1 were patchy infiltration, lobar consolidation, and interstitial infiltration with airbronchogram and bilateral distribution. While these findings can be associated with other infections; they may be suggestive to 2009 influenza A (H1N1) in the appropriate clinical setting. Various radiographic patterns can be seen in thoracic CT scans of the influenza patients. Imaging findings are nonspecific.