International Journal of Advanced Research and Development
ISSN: 2455-4030; Impact Factor: RJIF 5.24
Received: 22-04-2019; Accepted: 25-05-2019
www.advancedjournal.com
Volume 4; Issue 4; July 2019; Page No. 34-36

Study of ENT complaints in patients with swine flu (H1N1 Virus)

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Abstract
Background: Swine flu is an acute respiratory disease caused due to H1N1 viral infection. It became a household term in 2009 when it was first discovered to cause infection in human beings.
Methods: During the period July 2015 to May, 2019, case records of 174 patients with severe influenza like illness (ILI) and respiratory complications were retrospectively studied in Department of ENT in LLRM Medical College, Meerut.
Results: The mean age of patients infected with H1N1- was 45.2±15.3 years (range of 8 to 60 years). Common presenting symptoms included fever in 134, cough in 20, sore throat in 109 and breathlessness in 19 patients.
Conclusion: Swine flu caused by the H1N1 virus is a highly contagious infection that can rapidly spread from person to person. Coughing and sneezing can release thousands of particles that can spread through the air.

Keywords: Swine flu, H1N1 Influenza

Introduction
Swine flu is an acute respiratory disease caused due to H1N1 viral infection. It became a household term in 2009 when it was first discovered to cause infection in human beings. In August 2010, the World Health Organization (WHO) declared Swine flu as a pandemic as it spreads from person to person across the world covering large geographies simultaneously. The symptoms of H1N1 flu are similar to those of other influenzas, and may include fever, cough (typically a “dry cough”), headache, muscle or joint pain, sore throat, chills, fatigue, and runny nose. Diarrhea, vomiting, and neurological problems have also been reported in some cases [1]. Risk factors for severe disease from pandemic (H1N1) 2009 virus infection reported to date are considered similar to those risk factors identified for complications from seasonal influenza. These include the following groups:

- Infants and young children, in particular <2 years
- Pregnant women
- Persons of any age with chronic pulmonary disease (e.g. asthma, COPD)
- Persons of any age with chronic cardiac disease (e.g. congestive cardiac failure)
- Persons with metabolic disorders (e.g. diabetes)
- Persons with chronic renal disease, chronic hepatic disease, certain neurological conditions (including neuromuscular, neurocognitive, and seizure disorders), hemoglobinopathies, or immunosuppression, whether due to primary immunosuppressive conditions, such as HIV infection, or secondary conditions, such as immunosuppressive medication or malignancy
- Children receiving chronic aspirin therapy
- Persons aged 65 years and older [2]

Aims and Objects
To study the ENT manifestations of the patients with swine flu infection

Materials and methods
174 patients were included in the study. All the patients who came to ENT Department, LLRM, Medical college were categorized according to age and chief complaints. Statistical analysis was done.

Results
1) **Age distribution**

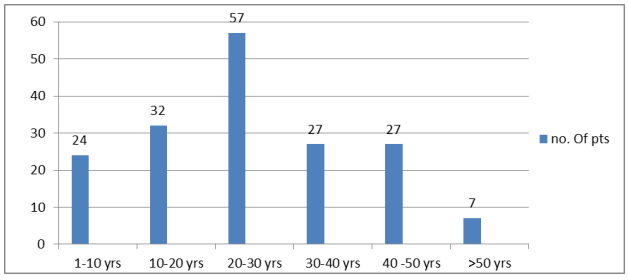

Fig 1

In our study, maximum number of patients were in adult age group (between 20-30 years)

2) Sex distribution

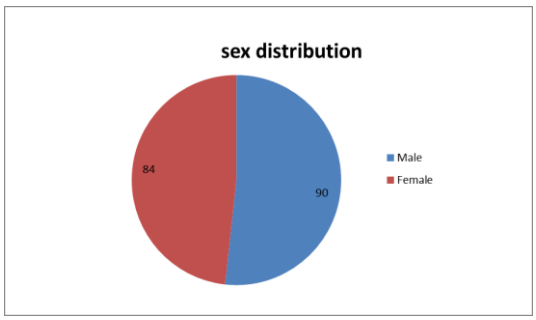

Fig 2

Male patients predominate in our study with population of 90 out of 174.

3**) Clinical features**

- Fever
- Chills
- Cough
- Sore throat
- Runny or stuffy nose
- Watery, red eyes
- Body aches
- Headache
- Fatigue
- Diarrhea
- Nausea and vomiting
- Respiratory distress

Flu symptoms develop about one to three days after you're exposed to the virus [3].

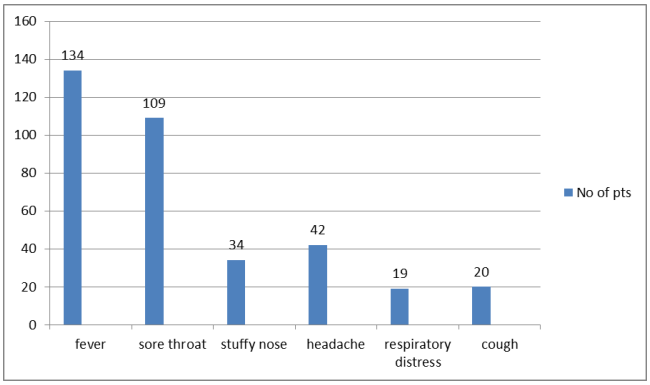

Fig 3

Majority of patients were having fever (77%) amd sore throat (62.6%). Others symptoms were stuffy nose, headache, respiratory distress and cough having 19.5%, 24.13%, 10.9% and 11.4 % respectively.

Discussion

Swine flu is an acute respiratory disease caused due to H1N1 viral infection. It became a household term in 2009 when it was first discovered to cause infection in human beings. In August 2010, the World Health Organization (WHO) declared Swine flu as a pandemic as it spreads from person to person across the world covering large geographies simultaneously [4]. Swine flu is caused by a strain of influenza virus with genes very similar to influenza viruses usually occurring in swine (pigs) in North America, hence the name “Swine flu”. The virus strain causing swine flu is relatively new, known as the H1N1 [5]. The virus has now acquired the form of a regular human flu [6]. The disease is spread through saliva and mucus particles from person to person in some of the following ways: 1) By breathing in air droplets containing virus when an infected person coughs or sneezes. 2) An uninfected person touches inanimate surfaces like door handles contaminated with the flu virus from another person and then touches their nose, mouth, eyes etc. 3) When a person comes in contact with body fluids like saliva of another person for example while taking care of an infected child or adult [7]. The incubation period, i.e. the period between infection and appearance of symptoms of swine flu ranges from approximately one to four days, two days being average.

The contagious period for swine flu, i.e. the period in which it is highly infectious usually begins a day prior to the appearance of symptoms and lasts for about five to seven days. However, in individuals who are at high risk or have a weak immune system and children may remain contagious for a prolonged duration of as long as 10 to 14 days [8].

The signs and symptoms of swine flu are body ache, headache, chills, cough, diarrhoea, fatigue, fever, nausea and vomiting, stuffy or running nose, sore throat [8].

The diagnosis of swine flu can be made by your doctor on the basis of your medical history, exposure to the H1N1 virus through an infected person and physical examination. Confirmatory tests include: 1) Throat/ nasopharyngeal swab test, 2) Blood test for the H1N1 antibodies [9].

Treatment with oral antiviral medicines is often reserved for people at high risk for complications from the flu. This so because the virus undergoes mutagenic changes, as a result, it becomes resistant to the drug very fast. Healthy individuals contracting swine flu have inherent ability to fight the infection [10].

Conclusion

In the present study, we have taken 174 patients, who suffered from swine flu infection and visited LLRM medical college during the period of July 2015 to May 2019. Majority of patietns fall in age category of 20-30 years. Most common clinical manifestation is fever and sore throat followed by cough, respiratory distress and headache.

Conflict of interest

Authors state no conflict of interest

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