Research Article

Management of swine flu epidemics

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Abstract

Swine flu was pandamic in 1918 and 1989-90 in the year 2009 the disease was wide spread throughout the world. All the governments are worried that they have to safe guard the population. there was travel restriction in the air and train-rail routes etc. at the airport and railway stations all the travellers were screened for symptoms of H1N1 by the specially trainne medical personnel. H1N1 was the cause of loss of many lives. During the 2009 epidemic the author has screened about 450 cases out of this 395 were positive for H1N1. he treated all the positive cases with the drug tamiflu and broad spectrum antibiotic when needed. He shares his experience for future guidance.
Key words: H1N1, swine flu, virion, epidemic, pandamic.

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INTRODUCTION

Swine flu also called pig fever was rampant causing epidemics in many countries like Saudi Arabia, united Arab emirates, Kuwait, Afghanistan, Andora, Bhutan, Botswana, Haiti marshal island, Miconesia, Namibia, saint kits, st. Vincent, Grenadada, Soloman Island, Sudan, Toga, Tureky Tanzania, and many Asian countries including china. Influenza is an acute infectious disease of respiratory tract which occurs in sporadic, epidemic, and pandemic forms .there was a pandemic in the year 1989-90. The most severe pandemic was in 1918. The influenza virus was isolated in the year 1933 by smith, and rewes, a mile stone in the development of medical virology. In 1935 burnet developed chick embryo technique global H1N1 of (swine flu) epidemic

Figure 1

Birds particularly aquatic appear to be the primary reservoir of influenza viruses'. In birds it is usually asymptomatic intestinal infection. The of the healthy birds is the best source for isolation of avian influenza virus. Influenza virus has been classified as type a, type b, and type c. Influenza page3 virus -b and c are exclusively human virus. As of 2009 the sub types of influenza a are hini, H1N2. H2N1, H3N1, H3N2 and H2N3. The swine flue virus is common throughout pig population. If infection occurs in human it is called zoonotic swine flu influenza virus morphology. It is a myxoma virus. They are classified as orthomyxoviridae -consisting of influenza virus and para myxoviridae consisting new castle disease virus, mumps virus, para influenza virus, measles and respiratory syncytial viruses. The virus is inactivated by heating at 50 c. It remains viable at 0-4 c .for about a week .it can be preserved for years at –70 c or

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by freeze drying. The virus become viable on fomite such as blankets for about a week. Ether, formaldehyde, phenol salts of heavy metals, iodine destroy the infection. The virion is spherical, it is an enveloped virus. The outer layer is a lipid membrane. In which the virus multiply. Inserted into lipid membrane are proteins-glycoproteins—known as –ha (hemagglutinin) and na--(neuraminidase). These are the proteins which determine sub typex-H1N1. Na protein-is the target of the anti viral drugs—releza and tamiflu This study is the larger study .it is a retrospective study of 395 positive case in the year 2009*

MATERIALS AND METHODS

During the epidemic in 2009 in the kingdom of Saudi Arabia a total of 450 cases were screened. Out of this 395 cases were positive for H1NI. They were admitted in the hopital, treated with tamiflu. And bacterial complications were treated with 3rd generation cephalosporins-ceftrioxone intravenous injections since there was an epidemic of swine fu high degree of suspicion of signs and symtoms were kept in mind to isolate the cases of swine flu. These cases on arrival in hospital were examined by the treating doctor. He himself, wearing, the protective spectacle. Apron, cap, mask and collected the nasal swab from each nostril. Thorat swab was also collected in a specified viral transport medium .the specimen was immediately sent in a cold container, by a special ambulance to the central lab situated about 250 k. m. Away. The lab immediately informed the result by internet and also by special messenger, to avoid delay in treatment.

Table 1: Signs and symptoms analysis

Signs and Symptoms	No. of Cases	Percentage
fever >102f	395 Cases	100%
Running nose	285 Cases	72%
Cough	280 Cases	70%
Sever body pain	395 Cases	100%
Headache	395 Cases	100%
Dyspnoea	256 Cases	65%
5 Bronchopneumonia	256 Cases	65%
Blood ur5ea- normal	395 Cases	100%

RESULTS

A total of 450 specimens were sent. 395 were positive for (swine flue) influenza a- -H1N1 all the suspected cases were immediately hospitalised. They were on complete bed rest immediately intra venous fluid was started. 2antipyretics given orally paracetamal15-20mg/kg every 4hourly Tami flu given orally bid dose regime intravenous ceftrioxone 100mg/kg given in two divided doses for secondary bacterial infections results and outcome fever subsided within 24 hours after starting treatment with Tamiflue cough and running nose gradually cleared X—ray broncho pnumonia cleared in a week's time the patients were discharged after seventh day

DISCUSSION

The above study is larger group of study when comparing earlier studies. All the patients were symptom free normal discharged returned home safely. Zero percent mortality has encountered during the study period. Number of cases of treatment failure has occurred during the study period - nil tamiflu was the drug of choice & was effective in treating swine flu resistance to tamiflu was not encountered during the study period early treatment will prevent mortality and morbidity.

CONCLUSIONS

Swine flu is not a dreaded disease as thought previously early diagnosis and treatment will save lives. This is the study conducted on a larger group of patients this study will create awareness among doctors which will save precious lives

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