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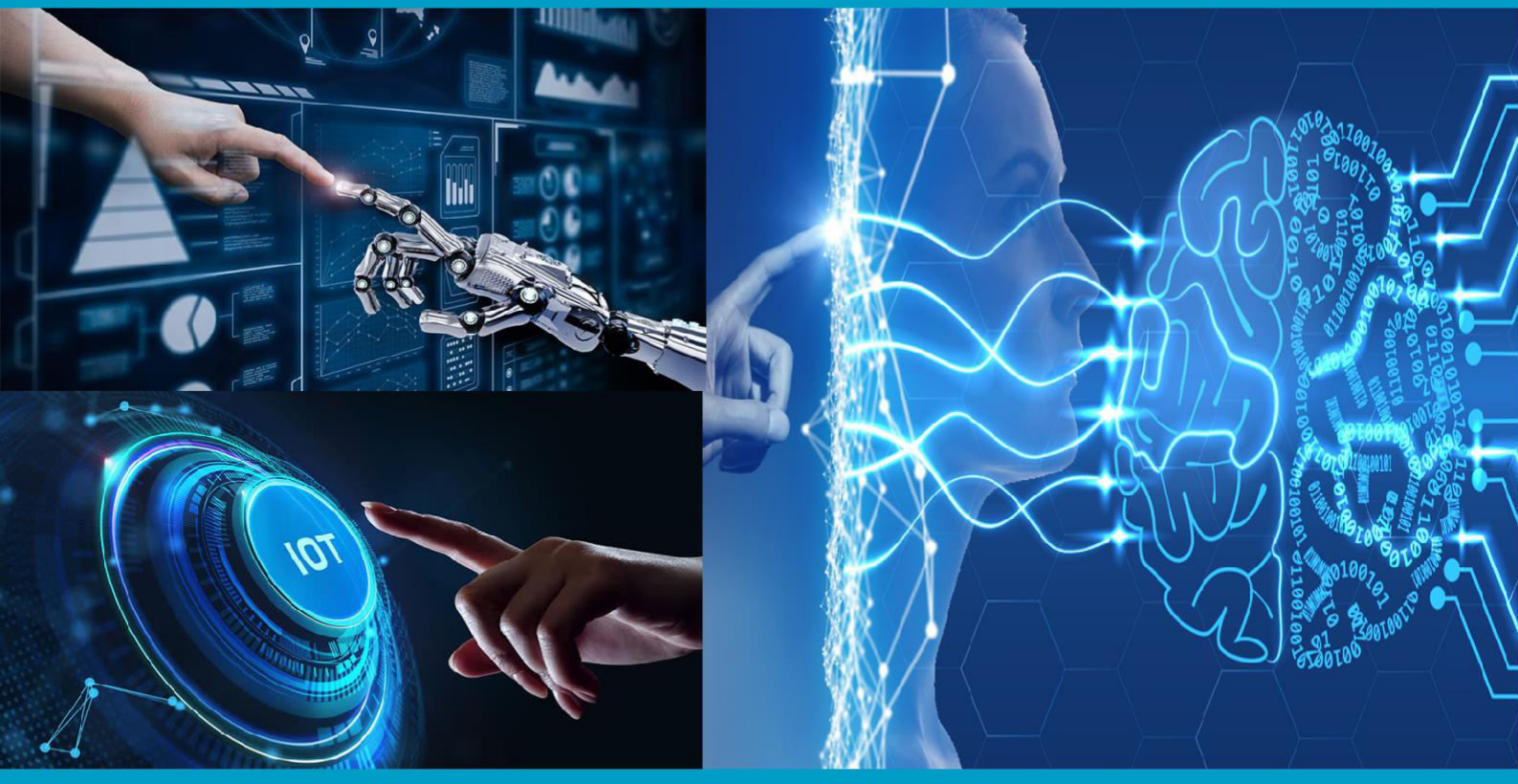

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INFLUENZA

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ABSTRACT: Influenza is an acute viral respiratory infection that affects all age groups and is associated with high mortality during pandemics, epidemics, and sporadic outbreaks. Nearly 10% of the world's population is affected by influenza annually, with about half a million deaths each year. Influenza vaccination is the most effective method for preventing influenza infection and its complications. The influenza vaccine's efficacy varies each season based on the circulating influenza strains and vaccine uptake rates.

I. INTRODUCTION

It is commonly referred to as the FLU, is an infectious viral diseases caused by RNA viruses of the family Ortho-myxoviridae (the influenza viruses), that affect birds and mammals. Common symptoms are chills, fever, sore throat, muscle pains, severe headache, coughing, fatigue and general discomfort, although confused with other influenza like illnesses, especially the common cold, influenza is a more severe disease.

Definition: influenza is a viral infection that affect mainly the nose, throat, bronchi and occasionally lungs. Infection usually lasts for about a week, and is characterized by sudden onset of high fever, aching muscle, headache and severe malaise, non-productive cough, sore throat and rhinitis.

History:

American Red Cross nurses keep the flu patients in temporary wards set up inside the Oakland municipal Auditorium.

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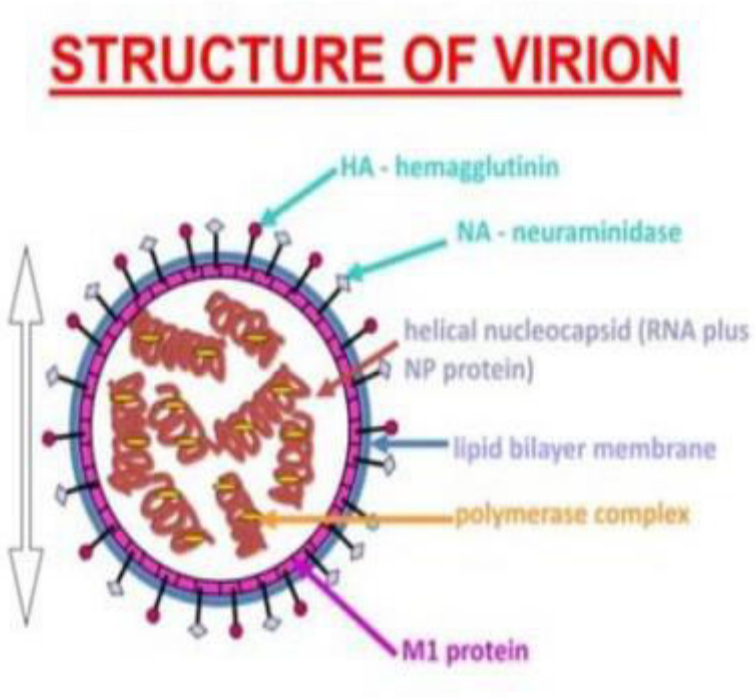
in 412 BC in modern-day Turkey at the turn of the autumn season.

17thcentury: between 1780-0782, an influenza epidemic infected 2/3 of Rome's population and ¾ of Britain's population. Later, disease spread to North America, West Indies and South America. Spread of pandemic culminated in New England,

Influenza can be traced as far back as 400 BC. In Hippocrates of the epidemics, he described as a cough outbreak that occurred New York and Nova Scotia in 1789. 1781 marked the beginning of the influenza epidemics and pandemic's.

II. EPIDEMIOLOGICAL DETERMINANTS



Agents: influenza viruses are classified within the family of ortho-myxoviridae. There are three viral sub-type, namely influenza type A, type B and type C. these three viruses are antigenically distinct there is no cross-immunity between them. Of importance are the influenza A and B vi9ruses which are responsible for epidemics of disease throughout the world. Both influenza A and B viruses have to distinct surface antigen the hemagglutinin (H) and the Neuraminidase (N) antigens. The H antigen initiates infection following attachment of the virus to susceptible cells. The N antigen is responsible for the release of the virus from the infected cells.

Since the isolation of the virus A in 1933, major antigenic changes have occurred twice- once in 1957(H2N2) and then again in 1968(H3N2). Strains occurring between 1946 and 1957 have been called H1N1 strains. The shift in 1968 involved only the H antigen. In 1977, a new antigenic type appeared in china and the USSR and the virus was identified as A (H1N1). Within a year, it had been isolated in countries all Over the world.

Curiously, this was an earlier virus which has appeared after a lapse of over 20 years.

SOURCE OF INFECTION: the source of infection usually is a case or sub-clinical case. During epidemics, a large number of mild and asymptomatic infections occurs, which play an important role in spread of infection. The secretion of respiratory tract are infective.

INCUBATION PERIOD FOR INFLUENZA: the incubation period is about5 18 to 72 hours.

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PERIOD OF INFECTIVITY: the virus I present in the Naso-pharynx a couple of days before and couple of days after the onset of symptoms.

HOST FACTORS

AGE AND SEX: influenza affects all ages and people of both sexes. In general, the attack rate is lower among adults. Children constitute an important link in the transmission chains. The highest mortality rate during an epidemic occurs among certain high-risk groups in the population such as old people (generally over 65 years of age), infants under 18 months, and persons with diabetes or chronic heart diseases, kidney and respiratory ailments.

HUMAN MOBILITY:

This is an important factor in the spread of the infection.

IMMUNITY: antibodies appear in about seven days after an attack and reach a maximum level in about two weeks. After about 68 to 12 months, antibody levels drops to pre-infection levels. The antibody to H neutralizes the virus while the antibody to N modifies the infection. Secondary antibodies develop I the respiratory tract after infection and consist predominantly of IgG. Antibodies must be present in sufficient concentrations at the superficial cells (THE SITE OF VIRUS INVASION) of the respiratory tract.

ENVIRONMENTAL FACTOR OF INFLUENZA:

Season: the seasonal incidents is striking, epidemics usually occurs in the winter months in the northern hemisphere. In India, however, epidemics have often occurred in summer.

Overcrowding: it enhances transmission of the infection. The attack rates are high in closed population groups. Examples: schools, institutions, ships, etc.

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PATHOGENESIS:

The viruses enters the respiratory tract and causes inflammations and necrosis of superficial epithelium of the tracheal and bronchial mucosa, followed by secondary bacterial invasion. There is no viremia.

SIGN AND SYMPTOM:

Symptom begins 1-4 days after infection. The following symptoms of the flu can vary depending on the time of virus, a person's age and overall health: sudden onset of chills and fever (101-103 F), sore throat, dry cough, fatigue, malaise, terrible muscle aches, headaches, diarrhea, and dizziness. Both viruses cause the same symptoms fever lasts from one to five days, averaging about three days in adults. The most dredged complication is pneumonia, which should be suspected if fever persist beyond for four and five days. Or recurs abruptly after convalescence

COMPLICATION IN CHILDREN

Studies shows a link between the development of Reye's syndrome and the use of aspirin for reliving fevers caused by the influenza virus. The disease involves the CNS and the liver and children exhibit symptom of drowsiness, persistent vomiting and change in personality.

DIFFERENCE BETWEEN COLD AND FLU

Symptoms	Cold	Flu
Fever	Rare	High
Headaches	rare	prominent
General aches	mild	severe
Fatigue	mild	Can last for 2-3 weeks
Extreme exhaustion	absent	Early and prominent
Blocked nose	common	sometimes
sneezing	Usual	sometimes
Sore throat	common	sometimes
Chest discomfort	Mild	present

Influenza vaccines

Killed vaccines

Most influenza vaccination programs make use of inactivated vaccines. Subcutaneous route. A single inoculation (0.5ml) is usually given. However, in persons with no previous immunological experience two doses of the vaccine, separated by an interval of three to four weeks are considered necessary to induce satisfactory antibody levels

The protective value of the vaccine varies between 70 to90 percent and immunity lasts for only three to six months re-vaccination on an annual basis is recommended. The killed vaccine can produce fever, local inflammation at the site of injection, and very rarely Gillian – barre syndrome (an ascending paralysis)

Live attenuated vaccines

Live attenuated vaccines based on temperature – sensitive (ts) mutants have been extensively used in the USSR. They may be administered as "nose drops" into the respiratory tract. They stimulate local as well as systemic immunity. The frequent antigenic mutations of the influenza virus present difficulties in the production of effective vaccines, particularly live vaccines.

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Newer vaccine.

Split –virus vaccine: it is also known as sub-virion vaccine. It is a highly purified vaccine, producing fewer side effect than the "whole virus" vaccine. Due to its lower antigenicity, it requires several injections instead of a single one. It is recommended for children.

Recombinant vaccine: by recombinant techniques, the desirable antigenic properties of a virulent strain can be transferred to another strain known to be of low virulence. Efforts to improve the influenza vaccine have been continuing.

YOU CAN PREVENT THE FLU BY

1. Avoid close contact.
2. Stay home when you are sick
3. Cover your mouth and nose.
4. Clean your hands.
5. Avoid touching your eyes, nose or mouth
6. Practice other good health habit.

HOMEOPATHIC TREATMENTS

1. ARSENIC ALBUM: A person who needs this remedy during flu feels chilly and exhausted, along with an anxious restlessness. The person may be thirsty, but often only takes small sips. If the digestive system is involve nausea with burning pain, or vomiting and acrid diarrhea may occurred. If the flu is respiratory, water runny nose with sneezing paroxysms and a dry or wheezing cough are often seen.
2. BELLADONNA: this remedy relives high fever of sudden onset with profuse sweating, and hyper sensitivity to light and noise.
3. BRYONIA ALBA: this remedy relives high fever with body ache improved by staying immobile.
4. FERRUM PHOSPHORICUM: this relives low grade fever with weakness and tendencies to nose bleeds and ear aches.
5. APIS MELLIFICA: this remedy may be helpful if the person has dry fever that alternates with sweating, facial flushing, and a very sore throat with swollen tonsils. Pain may extent to the ear and the eyelids may be swollen. The person can be very irritable, disliking interference.

III. CONCLUSION & FUTURES WORK

It is commonly referred to as the FLU, is an infectious viral diseases caused by RNA viruses of the family Ortho-myxoviridae (the influenza viruses), that affect birds and mammals. Influenza affects all ages and people of both sexes. In general, the attack rate is lower among adults. Children constitute an important link in the transmission chains. we are cure in patient for respiratory disorder and to cure of self. And patient or all of people awareness of disorder. And In futures to use all drug and compare with the different drug and cure and different age to compare a data.

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