

## Lecture ( 8)

### (Rubella)

Rubella, also known as German measles, is one of the most highly communicable infectious diseases, is an infection caused by the rubella virus.

#### History

- ❖ Rubella was first described in the mid-eighteenth century.
- ❖ In 1814, William George Maton first suggested that it be considered a disease distinct from both measles and scarlet fever.
- ❖ The fact that three German physicians described it led to the common name of "German measles."

Another theory is that the name stems from the similarity of the disease symptoms to those of measles

#### Causative Agent

Rubella virus is an enveloped, positive-stranded RNA virus classified Rubivirus in the Togaviridae family.

Reservoir-Humans.

#### Transmission

The virus is spread by airborne respiratory droplets. Infected individuals may be contagious as early as a week before the appearance of the rubella rash, and for up to a week after it first appears. (It is most contagious at the time the rash first appears.) Children born with CRS may transmit the virus to others for more than a year.

- Rubella cases typically peak in late winter or early spring.

#### Occurrence:

In the absence of generalized immunization rubella occurred worldwide .

## **Symptoms:**

Its symptoms include low-grade fever, respiratory problems, and most notably a rash of pink or light red spots that typically begins on the face and spreads downward. The rash occurs about two to three weeks after exposure to the virus.

## **Complications:**

- ❖ Rubella is not normally a serious illness in children, and, in fact, its symptoms are often mild. The chief danger of the disease is Congenital Rubella Syndrome (CRS).
- ❖ Infection during early pregnancy may result in congenital rubella syndrome (CRS) or miscarriage (Symptoms of CRS include problems with the eyes such as cataracts ears such as deafness, heart, and brain.
- ❖ Complications from rubella are more common in adults than children, and include arthritis, encephalitis, and neuritis.

## **Prevention**

Rubella is preventable with the rubella vaccine. Often it is given in combination with the measles vaccine and mumps vaccine, known as the MMR vaccine.

## **Diagnosis**

Rubella virus specific IgM antibodies are present in people recently infected by rubella virus, but these antibodies can persist for over a year.

Collect throat (best source), nasal, or urine specimens for viral detection by polymerase chain reaction (PCR) testing, and blood for serology testing.

## **Treatment**

- ❖ There is no direct treatment for rubella. Supportive care may be provided, including efforts to lower fever.
- ❖ Congenital heart defects and cataracts can be corrected by direct surgery.