

VIROLOGY LECTURE

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Mumps (Parotitis)

- Inflammation of the salivary glands
- Mainly the parotid glands are affected.
- There are 3-pairs of salivary glands:
 - Two parotid glands (the largest), one in each cheek, over the angle of the jaw in front of the ears.
 - Two submandibular glands at the back of the mouth
 - Two sublingual glands, under the floor of the mouth

Viral etiology:

- Mumps virus

Virology:

- Family: paramyxoviridae
- Genus: Parainfluenza virus
- Enveloped
- Pleomorphic
- Helical nucleocapsid
- Two glycoprotein spikes,
 - The HN has both hemagglutinine and neuraminidase activity
 - The F, enables the virus to fuse infected cells to form syncytia (multinucleated giant cell)

Transmission:

- By inhalation of respiratory droplets, during sneezing and coughing
- The virus sheds in saliva
- Direct contact with saliva

Target Group:

- Children

I.P.:

- 3 – weeks

Symptoms:

- Moderate fever
- Malaise
- Pain on chewing or swallowing, particularly acidic liquids.
- Inflammation of the salivary glands, particularly the parotid glands.
- The swelling appears in front of the ear

Complications:

- Aseptic meningitis
- Encephalitis
- Orchitis
- Pancreatitis
- Oophoritis
- Thyroiditis

Prognosis:

- Self-limiting disease
- Recovery is usual

Lab. Diagnosis:

- By detection of IgM-Ab to mumps virus

Prevention:

- A live attenuated vaccine is available (MMR)
- Contains mumps, measles and rubella attenuated strains.
- Administered: in one dose, intramuscularly or subcutaneously
- Immunity: protective

Treatment

- There is no specific anti-viral drug therapy
- Treatment is supportive, depends on rectifying symptoms (fever & pain), using antipyretic and analgesics

Self-care:

- The child must rest in bed until the fever goes away.
- Isolate the child, to prevent spreading the disease to other.
- Use analgesics and anti-pyretic to ease symptoms
- Use cold compress to ease the pain of swelling glands.
- Avoid food that require chewing
- Avoid sour foods that stimulate saliva production
- Drink plenty of fluids