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Submitted By:- Maria Abbas  
R.No : 32449  
Batch: 59 (Online)  
Submitted to:- Sir Majid.  
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Ability.

ASSIGNMENT:- 1

# POLIO:

## DEFINITION:-

Polio or poliomyelitis is a disabling and life-threatening disease caused by the poliovirus. The virus spread from person to person and can infect a person's spinal cord causing paralysis (can't move parts of the body)

The term poliomyelitis derives from the ancient Greek word polio's means "grey" and myelos meaning marrow referring to the grey matter of the spinal cord.

## SYMPTOMS:-

Initial symptoms of polio are fever, fatigue, headache, vomiting, stiffness of the neck and pain in the limbs.

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• **ABORTIVE POLIO:-**

About 5% of people with the poliovirus get a mild version of the disease called abortive poliomyelitis. This leads to flu-like symptoms that last 2 to 3 days.

These include:

- Fever
- Headache
- Muscle aches
- Sore throat
- Stomach ache
- Nausea
- Loss of appetite
- Vomiting.

• **NONPARALYTIC POLIO:-**

While the illness last longer than a few days, it doesn't cause paralysis. Beside having more severe flu like symptoms. These include.

- Neck pain or stiffness.
- Aches or stiffness in the arms or legs.
- Severe headache

A second phase of the symptoms may include. A person seems to be better before second phase.

Symptoms includes

- Stiffness of the spine and neck.
- Decreased reflexes
- Muscle weakness.

• **PARALYTIC POLIO:-**

The disease begins much like non-paralytic polio. But it progresses to more severe sign and symptoms including.

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- Intense pain • Extreme sensitivity to touch • Tingling or prickling sensations • Muscles spasms or twitching • Muscles weakness progressing to a limp paralysis. Depending on the severity of disease other signs or symptoms may include:
  - Paralysis of muscles involved in breathing • Difficulty swallowing.

### • POST POLIO SYNDROME -

Post-polio syndrome is the appearance of new signs or symptoms. This usually happens decades after having polio. Common symptoms are:

- Progressive muscle or joint weakness and pain.
- Fatigue • Muscle Wasting
- Breathing or swallowing problems.
- Sleep related breathing disorder such as sleep apnea.
- Lowered tolerance of cold temperatures.

### CAUSES

Polio is caused by infection with the poliovirus. This virus is highly contagious, and is passed on through food and

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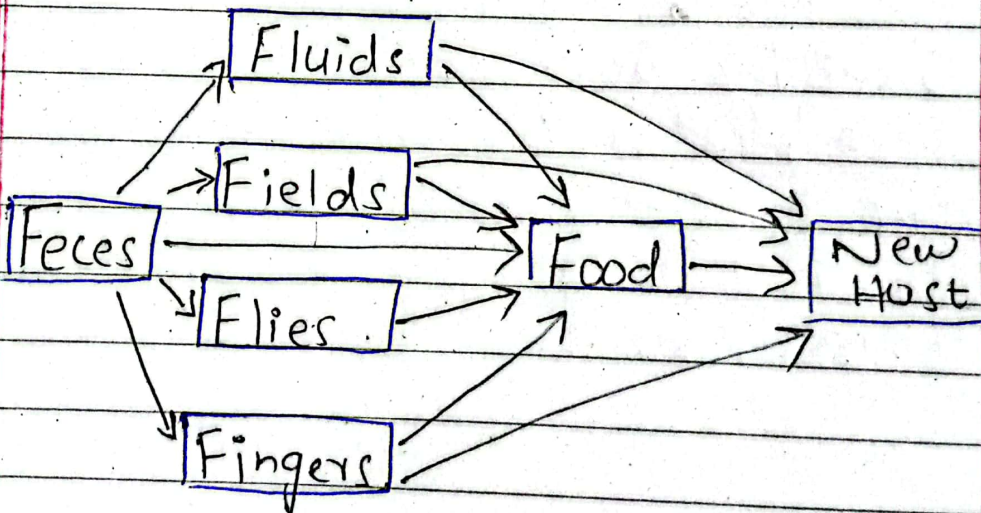
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water contaminated with the stool (feces) of infected people. It can take 4 to 21 days before symptoms appear, and an infected person can pass the virus on to other people even before symptoms appear.

Infection with polio happens when the virus enters the body through the mouth, multiplies in the throat and intestine and spreads through the blood to the central nervous system. There, the virus attacks nerve cells, which can lead to paralysis.

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## TREATMENT:-

There is no cure for polio. The only focus is on increasing comfort, speeding recovery and preventing complications. Depending on the severity of disease, supportive treatments may include:

- Bed rest
- Pain relievers
- Hot moist packs to control muscle pain and spasms
- Portable ventilators to help with breathing.
- Physical therapy exercises to prevent bone deformity and loss of muscle function.
- Splints or other devices to encourage good position, or alignment, of the spine and limbs.
- Antibiotic for urinary tract infections
- Antispasmodic medication to relax muscles.

## PREVENTIONS:-

There are mainly two types of vaccines that are widely used to prevent polio. They are

- Inactive Poliovirus vaccine (IPV)
- Oral Polio vaccine (OPV)

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## • IPV

Inactive polio virus vaccine is given as an injection in the leg or arm, depending on the patient age.

## • OPV

It is also called as trivalent oral polio vaccine. OPV consists of mixture of live attenuated polio virus strains of all three polio virus types.

It produces antibodies in the blood to all three types of poliovirus. In the event of infection, these antibodies protect against paralysis by preventing the spread of polio virus to the nervous system. Moreover, the mucosal antibodies limit the replication of the polio virus inside the intestine.

## CONCLUSION:-

As the disease polio cannot be cured if once attacked, it is better to follow preventive measure as it is contagious. The vaccination is definite in case of infants and children.