

TYPHOID



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By

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INTRODUCTION:

Typhoid fever is a bacterial infection caused by the bacterium *Salmonella Typhi*. It is transmitted through contaminated food and water or close contact with an infected person.

ETIOLOGY/CAUSES:

- **Bacteria:** *Salmonella Typhi*
- **Consumption of contaminated food and water:** This is the most common cause of typhoid fever, and occurs when a person consumes food or water that has been contaminated with the *Salmonella Typhi* bacterium.
- **Poor sanitation:** In areas with poor sanitation, the risk of typhoid fever is higher, as the bacterium can spread easily through contaminated water supplies.
- **Close contact with an infected person:** Typhoid fever can be spread through close contact with an infected person, such as through physical contact or exposure to their bodily fluids.
- **International travel:** Travelers to areas with poor sanitation and hygiene practices are at a higher risk of contracting typhoid fever.

PATHOPHYSIOLOGY:

- Typhoid fever develops when the bacterium *Salmonella Typhi* enters the body and multiplies in the intestines, bloodstream, and other organs.

- The infection usually begins with the ingestion of contaminated food or water, or through close contact with an infected person.
- Once the bacteria enter the body, they travel to the small intestine and invade the intestinal wall.
- The bacteria then enter the bloodstream and spread to other organs, such as the liver, spleen, and lymph nodes.
- The bacteria multiply rapidly in the bloodstream, causing a high fever and other symptoms.
- The body's immune system responds to the infection by producing antibodies, which can help to fight off the bacteria.
- However, in some cases, the bacteria can persist in the body and continue to multiply, leading to a more severe form of the disease known as enteric fever.

CLINICAL MANIFESTATION:

- High fever: A persistent and high fever is one of the most common symptoms of typhoid fever, which can last for several days.
- Headache: Many people with typhoid fever experience a severe headache, which can be accompanied by fatigue and weakness.
- Abdominal pain: Abdominal pain and discomfort are common symptoms of typhoid fever, which can be accompanied by nausea, vomiting, and diarrhea.
- Loss of appetite: Many people with typhoid fever experience a loss of appetite and weight loss, due to the effects of the infection on the digestive system.
- Rash: In some cases, a rash may develop on the trunk of the body, which can be small and flat or raised and spotty.

- **Other symptoms:** Other symptoms of typhoid fever may include muscle aches, joint pain, and a dry cough.

DIAGNOSIS:

- **Family history & Medical history**
- **Physical examination**
- **Blood culture:** This is the most common test for diagnosing typhoid fever. A sample of blood is taken and cultured in a laboratory to detect the presence of the Salmonella Typhi bacterium.
- **Stool culture:** A sample of stool can also be cultured in a laboratory to detect the presence of the Salmonella Typhi bacterium. This test may be useful in identifying carriers of the bacterium.
- **Urine culture:** A urine sample can be cultured in a laboratory to detect the presence of the Salmonella Typhi bacterium. This test may be useful in identifying carriers of the bacterium.
- **Widal test:** This blood test detects antibodies produced by the body in response to a Salmonella Typhi infection. While it is less specific than blood culture, it can be useful in diagnosing typhoid fever in areas where blood culture is not available.
- **Rapid diagnostic tests:** These are newer tests that can quickly detect the presence of the Salmonella Typhi bacterium in blood or stool samples. They are not as reliable as blood culture, but can be useful in situations where quick diagnosis is needed.

PHARMACOLOGICAL MANAGERMENTS:

- **Ciprofloxacin:** This antibiotic is commonly used to treat typhoid fever, and is often the first choice for treatment in adults.
- **Azithromycin:** This antibiotic is an alternative to ciprofloxacin, and is often used in cases where ciprofloxacin is not effective or not tolerated.
- **Ceftriaxone:** This antibiotic is often used in severe cases of typhoid fever, or when there is a risk of complications such as intestinal perforation.

NON PHARMACOLOGICAL MANAGERMENTS:

- **Vaccination:** There are two types of typhoid vaccines available - an injectable vaccine and an oral vaccine. These vaccines can help to protect against typhoid fever and are recommended for people who are at high risk of exposure, such as travelers to high-risk areas and laboratory workers.
- **Safe food and water:** Typhoid fever is often spread through contaminated food and water, so it is important to take precautions to ensure that the food and water you consume are safe. This includes drinking only bottled or boiled water, avoiding raw fruits and vegetables, and ensuring that food is cooked thoroughly.
- **Good hygiene:** Practicing good hygiene can help to prevent the spread of typhoid fever. This includes washing your hands frequently with soap and water, especially before eating and after using the bathroom, and avoiding close contact with people who are sick with typhoid fever.

- **Avoid high-risk areas:** If possible, avoid traveling to areas where typhoid fever is endemic, especially if you have a weakened immune system or are at increased risk of complications.
- Take medicine by consulting with doctor.