

KISSING DISEASE (Infectious Mononucleosis)

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Abstract

Infectious mononucleosis, or "mono" for short, is a viral illness that is common in teens and young adults. Although several viruses can cause mono, 92% of cases are caused by the Epstein-Barr virus (EBV). By middle adulthood, 95% of Americans have antibodies against EBV and thus have been infected at some point. This paper provides information regarding the clinical manifestation of Infectious mononucleosis (Kissing disease).

Keywords: - *Infectious mononucleosis, Kissing disease, EBV, Clinical manifestation*

INTRODUCTION

When the primary EBV infection mainly occurs in childhood, often it is without symptoms. However, when teens and young adults get infected, because of their aggressive and active immune systems, they get the set of symptoms we call "mono" (Masucci et al., 1994).

The EBV virus develops its symptoms quiet slowly. A patient has had the virus for as many as 30-60 days before the first mild symptoms develop: fatigue, mild headaches and loss of appetite are

common (Schuster et al., 1992). While sometimes these are the only symptoms, commonly the patient follows in about a week with fever, sore throat (often mild to chronic, with exudates or "white spots" on the tonsils), and swollen glands in the neck, aggrandizing fatigue, muscle aches and occasionally a skin rash. In most cases, the spleen can enlarge and the liver can become inflamed (Tattevin et al., 2006). In any given patient with mono, any or all of the above symptoms may occur, and the illness can range from very mild to quite severe. Mononucleosis is

generally diagnosed by blood tests (Crowcroft et al., 1998). At Student Health Services, results are commonly available within 24 hours or less. Up to 12% of

mono patients will initially have negative blood tests, so it may be necessary to repeat the test in one to two weeks (Morris et al., 2002).

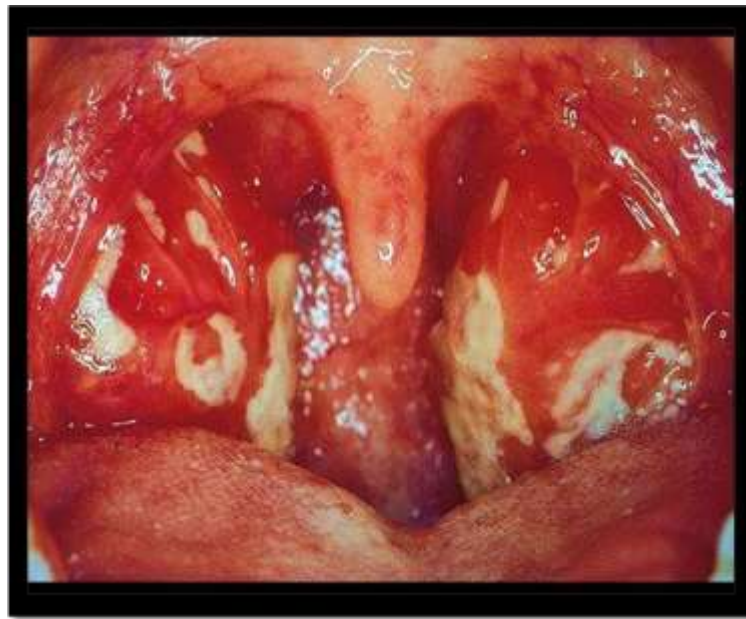


Fig: 1 Infectious mononucleosis



Fig: 2 Infectious mononucleosis (Swollen part)

Mono is spread by saliva, and the virus is usually present in a patient's saliva for about 30-50 days after onset of symptoms (Hoagland, 1975). Although mono is often called the "kissing disease" (and certainly

kissing is an effective way to spread it), very few patients have any idea and are unaware how they got the infection. Only one-third of those infected with EBV get "classic" mono, so there are many people

out there with no symptoms who can spread the disease! Fortunately, mono is not steeply contagious. Studies have shown, for example, that roommates have little worry about from casual contact, and there is no need to specifically quarantine mono patients (Lennon et al., 2010).

Diagnosing Infectious Mononucleosis

Healthcare caters typically diagnose infectious mononucleosis based on symptoms.

Laboratory tests are not mainly needed to diagnose infectious mononucleosis. However, specific laboratory tests may be needed to identify the specific cause of illness in people who do not have a typical case of infectious mononucleosis.

The blood work of the patients who have infectious mononucleosis due to EBV infection may show (Ramagopalan et al., 2011)

- more white blood cells (lymphocytes) than normal
- unusual looking white blood cells (atypical lymphocytes)
- fewer than the normal neutrophils or platelets
- abnormal liver function

WHAT IS INFECTIOUS MONONUCLEOSIS?

Infectious mononucleosis (Mono) is an illness specifically caused by several viral agents, most commonly the Epstein-Barr virus (EBV). Mono is an extremely common illness in the children and young adults, with many cases being very mild and resolving promptly without the patient feeling sick enough to seek medical care. On occasion, mono can cause a more prolonged illness with the protracted sore throat and profound fatigue (Evans, 1961). Serious complications are rare, and the illness commonly resolves completely without residual problems. The most common symptoms of mono encompass sore throat, fever, fatigue, and the development of swollen glands in the neck. Other signs and symptoms which may appear the skin rash, muscle aches, congestion, and abdominal pain. Mono can cause temporary enlargement of the liver and spleen, and occasionally synthesize a transient liver inflammation called mono hepatitis (Evans et al., 1997).

HOW DO I KNOW IF I HAVE MONO?

If the symptoms resemble the ones above, it does not necessarily mean you have Mono. Many viral illnesses cause a similar picture (Munoz et al., 1978). But if the

illness persists for more than a one to days with persistence of sore throat, swollen glands and fever, you should consider a visit to the Student Health Center to help evaluate and assess once symptoms and possibly test your blood for evidence of mono. There is a rapid screening test done at the Student Health Center which is quite specific and more or less accurate for diagnosing Mono, although in the early stages of illness the test may not yet have turned positive so a negative test may need to be repeated to establish the diagnosis. Tests for antibody to EBV and other causative viral agents are much available, although these take several days to a week to be reported and are somewhat expensive, which makes them less useful as a screening aid. Often, the diagnosis of Mono can be made on clinical grounds with the blood test availed for confirmation (Rupprecht et al., 1994).

OCCURRENCE OF MONO

Infectious Mononucleosis is spread primarily and majorly through saliva, which is how it got the name “The Kissing Disease.” While not nearly as contagious as influenza and other respiratory infections, studies emphasize that the majority of college students develop antibodies to EBV by the time they graduate, indicating infection at some

point. Most of them were never aware of having mono (Sacramento et al., 1992). It can be hard to tell who passed the infection to the person affected by because only about one third of the people who become infected with EBV develop classic mono. An infected person who never gets ill can still unknowingly give the virus to other people. Also, people who have had mono may have the virus in their saliva, for a long while after the illness is over. A majority of the cases probably are contracted through intimate contact between a susceptible person (someone who can catch mono because they do not have antibodies to EBV), and a healthy person who has EBV in their saliva. In most situations, people who have been infected with EBV are immune from ever getting the virus again (Sacramento et al., 1991).

What are the symptoms of Mono?

- Fever, which may range from 101°F (38.34°C) up to 104°F (40°C), and chills.
- Sore throat, often with swollen tonsils and white patches on the tonsils (which may mainly resemble Strep throat).

- Swollen lymph nodes all over the body, especially in the lymph nodes located in the neck.
- Headache or body aches.
- A lack of energy and fatigue.
- Loss of appetite.
- Pain in the upper left part of the abdomen, which may also indicate that the spleen has become enlarged.
- A rash can occur and is frequent in those who have been prescribed the antibiotics ampicillin or amoxicillin (Seroka, 1968)
- Mono may cause a person's spleen to swell to 2 - 4 times its normal size; an enlarged spleen occurs in up to 50% of those with mono. A blow to the abdomen could cause the spleen to break open (rupture).

Mono Diagnosis

A medical history and physical examination and investigation are the pivotal ways a health professional can diagnose mono (Smith et al., 1992).

Simple blood tests may be mainly performed to help confirm the diagnosis.

These tests include:

- Mononucleosis tests (including the monospot test and EBV antibody test)

are the blood tests. It is possible for the specific monospot test to come back negative typically early in the course of the infections (false negative).

- Complete blood count (CBC) may be done to aid confirm the diagnosis and further assessment of mono and rule out other infections or complications of mono.
- Other tests may be done if the complications of the mono occur or if the mononucleosis tests are negative.
- Liver tests may accurately perform to study the liver function and to determine if the liver is inflamed.
- If the monospot test is negative, a different blood test may be ordered to check and assess for cytomegalovirus (CMV) or other infections. CMV can cause a mono-like illness.

STERIODS OF USE IN THE TREATMENT OF INFECTIOUS MONONUCLEOSIS

Several early reports and assessments supported the use of corticosteroids in the treatment of infectious mononucleosis (Smith et al., 1995). Further trials and tests showed these effects to be very short

lived, with no significant difference between the control and intervention arm. A Cochrane review was therefore undertaken, which majorly concluded that there was insufficient evidence and the trials were too few, heterogeneous, and of poor quality to recommend steroid treatment for symptom control in glandular fever. Another more recent Cochrane review concluded that the corticosteroids aggrandized the likelihood of both resolution and improvement of pain in participants with sore throat; however, this review excluded publications on the patients with the diagnosis of infectious mononucleosis. Steroid treatment should be considered in cases of airway emergency, in an attempt to temporise or preclude the need for the intubation or tracheotomy (Steck et al.,1980). Despite these guidelines, the use of corticosteroids remains majorly widespread on a day to day basis. Several reports have mentioned the adverse and chronic effects of corticosteroid use in infectious mononucleosis, comprising cases of peritonsillar cellulitis, acute onset diabetes mellitus, and neurological sequelae(Stohr et al.,1992).

Mode of Spreading

- Infectious mononucleosis is mainly spread from person to person

through the direct contact with saliva (Thompson et al., 1994)

- It can be spread from the people who are sick with the illness or the healthy people who carry and can spread the virus intermittently for life
- The time from infection to the appearance of symptoms ranges from 4 to 8 weeks.

People Most Prone To:

- Anybody who has not been previously infected or previous history of can get infected with EBV. By the time they are adults, most people will have been infected but only a proportion will have had symptoms
- Very rarely, symptoms can recur in people with poorly functioning immune systems.

Prevention

Spread of the virus can be prevented through:

- Careful hand washing with soap and then the running water, especially after sneezing and coughing and before touching other people

- Avoiding saliva contact (eg kissing) with people who are sick with the infectious mononucleosis.

CONCLUSION

Infectious mononucleosis (Kissing disease) Is caused by EBV virus. This viral disease can have an incubation time for about 30-50days. The clinical manifestation of Infectious mononucleosis disease is discussed in this paper.

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