

Meningitis: In a Rapid Glane

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Received: July 18, 2017; Published: August 24, 2017

Meningitis is an inflammation that occurs in the brain membranes, which cover the brain and spinal cord. This very serious disease can develop very quickly [1]. There are different types of meningitis. The two main forms are viral and bacterial. Viral meningitis is the most common type, and can be relatively mild, so some patients may not even realize that they have something. The bacterial form is rare (about 2000 cases per year), but it is a life-threatening condition that requires immediate treatment [1,2].

Meningitis is divided into two types, bacterial meningitis where the risk of this type of "bacterial" in children under the age of two for exposure to bacterial meningitis is high, and if not treated quickly and correctly may lead to the death of the patient, and viral meningitis with different viral implication with less dangerous [3].

Although the bacterial meningitis has many forms (the two main types are meningococcal and pneumonia) which is always a serious disease, but its rapidly developing complications can make it more dangerous and life-threatening disease. In 80% of acute bacterial meningitis in children the was found to be mostly *Streptococcus pneumoniae*, *Neisseria meningitidis*, *Haemophilus influenzae* type b (Hib), group B Streptococcus (GBS), and *Listeria monocytogenes*. In 10 percent of cases, bacterial meningitis is a fatal disease and can cause serious deficits such as deafness or brain damage in 15 to 25 percent of cases. Therefore, prompt treatment is indispensable. One of the complications of meningitis caused by bacteria is septicemia, which comes through the introduction of bacteria into the bloodstream and multiply rapidly. Poisoning and toxemia is the most serious form of meningitis [4-6].

There is no specific nature of the disease. Symptoms can occur in any order, and may not appear at all. Many symptoms are usually associated with meningitis only when the disease is already at an advanced stage. This disease share many of its symptoms with other diseases affecting children, such as influenza. In children under two months of age: At this stage, it is the most difficult stages to detect the disease, and depends on the diagnosis of what the parents observe. The clinical detection is also difficult at this stage, it is necessary to raise the degree of suspicion in suspected cases. The symptoms associated are Lack of breastfeeding, increased crying, and no other symptoms. In children from two months to two years: fever with vomiting, and lack of desire for the child to eat, lack of nutrition, discomfort. Furthermore, in children over 2 years: the symptoms may appear earlier like fever, vomiting, lack of nutrition, discomfort. In addition to those symptoms, the headache, neck and back pain, light discomfort. In many cases skin rash may result from septicemia, appearing under the skin as a group of small spots and looks like prickly pins, and can begin anywhere in the body. If untreated, it turns into a bruised shape, then a purple skin is damaged and then the color changes. This may be difficult to see in the dark-skinned children [7-9].

Diagnosis is made by using lumbar puncture. This is performed by conducting a biopsy of the fluid around the spinal cord. This determines whether is bacterial or viral meningitis. The diagnosis also depends on the clinical examination [10].

Viral meningitis does not respond to antibiotics. Treatment may depend on rest and medical care. Most cases of viral meningitis are completely treated within seven to ten days without any complication or need for medication. However, the patient has some of the symptoms such as "headaches, fatigue and depression. Symptomatic control with antipyretics, analgesics, and antiemetics is usually all that is

needed in the management of uncomplicated viral meningitis. Moreover, in very rare cases of viral meningitis can cause inflammation in the brain, and then the patient may need antiviral treatment like Acyclovir [11].

Viral meningitis may lead to a person being kept in hospital, but some children are allowed to complete treatment if their condition is not so acute. The treatment reduces symptoms, including rest and taking anti-pain medication [11].

In bacterial infection, which is a risk and life-threatening when not treated. Bacterial meningitis requires immediate treatment in the intensive care unit. It may require antibiotic therapy for at least two weeks [12].

Vaccines are available to prevent certain types of meningitis. B-type hepatitis B vaccine may be given at the age of two months, three months, and four months. This vaccine also protects against other bacterial infections. The pneumococcal vaccine is given to the child at the age of two months, four months and thirteen months. Meningitis type C is given at the age of three months and then four months. The child can be given a booster dose of the B-type hepatitis B vaccine and the meningitis vaccine type C at the age of 12 months. Medical researchers not found yet a vaccine against meningococcal meningitis group B, the most common group that causes meningitis [5,11].

Bibliography

- Behrman Kleigman. Nelson textbook of pediatrics, 17th edition, WB Saunders company, USA (2004): 244-290.
- 2. Fisher R., et al. "Pediatrics Infectious Disease". 4th Edition, Lippincott Williams & Wilkins, U.K (2005): 9.
- 3. Attia J., et al. "The rational clinical examination. Does this adult patient have acute meningitis?" Journal of the American Medical Association 282.2 (1999): 175-181.
- 4. Gaschignard J., et al. "Neonatal bacterial meningitis: 444 cases in 7 years". Pediatric Infectious Disease Journal 30.3 (2011): 212-217.
- 5. Heath PT., et al. "Neonatal meningitis". Archives of Disease in Childhood. Fetal and Neonatal Edition 88.3 (2003): F173-F178.
- 6. Nigrovic LE, *et al.* "Children with bacterial meningitis presenting to the emergency department during the pneumococcal conjugate vaccine era". *Academic Emergency Medicine* 15.6 (2008): 522-528.
- 7. Pong A and Bradley JS. "Bacterial meningitis and the newborn infant". *Infectious Disease Clinics of North America* 13.3 (1999): 711-733.
- 8. Curtis S., *et al.* "Clinical features suggestive of meningitis in children: a systematic review of prospective data". *Pediatrics* 126.5 (2010): 952-960.
- 9. Ginsberg L and Kennedy DH. "Meningitis, bacterial". In: Pounder R, Hamilton M, eds. Handbook of current diagnosis and treatment. Edinburgh: Churchill Livingstone (1995).
- 10. Mann K and Jackson MA. "Meningitis". Pediatrics in Review 29.12 (2008): 417-429.
- 11. Chadwick DR. "Viral meningitis". British Medical Bulletin 75-76 (2005): 1-14.
- 12. Garcia CG and McCracken GH. "Acute bacterial meningitis beyond the neonatal period". In: Long SS, Pickering LK, Prober CG, eds. Principles and Practice of Pediatric Infectious Diseases. 4th edition. New York, NY: Elsevier Saunders (2012): 272-279.

Volume 7 Issue 5 August 2017

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