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Role of Community Pharmacist Care of Meningitis Patients

[1]Debjit Bhowmik*, Chiranjib[1], Biswajit[1], M. R. Chandira[1], K. K.Tripathi[1] and [2]K. P. Sampath Kumar

[1]Rajiv Gandhi College of Pharmacy, Nautanwa, Maharajganj, Uttar Pradesh
[2]Department of Pharmaceutical Sciences, Coimbatore Medical College, Coimbatore

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Abstract

Pharmacist plays an important role in patient's healthcare. Pharmacist is now becoming more patient oriented than product oriented and have brought many changes in life of patients. There are considerable evidence that patients counseling enhances patient compliance and improve the quality of life outcomes in Meningitis. Meningitis, an inflammation of the fluid surrounding the spinal cord and brain, is primarily caused by bacterial or viral infections. It can harm or destroy nerve cells and cause bleeding in the brain. The condition often causes high fever, neck stiffness, and headaches, although these classic symptoms may be absent or difficult to detect in newborns and young infants. Bacterial meningitis can be treated with a number of antibiotics, but no specific treatment for viral meningitis exists at this time; most people completely recover on their own. Meningitis is an infection of the fluid of a person's spinal cord and the fluid that surrounds the brain. People sometimes refer to it as meningitis. Meningitis is usually caused by a viral (viral meningitis) or bacterial infection (bacterial meningitis). Knowing whether it is caused by a virus or bacterium is important because the severity of illness and the treatment differ. Viral meningitis is generally less severe and resolves without specific treatment, while bacterial meningitis can be quite severe and may result in brain damage, hearing loss, or learning disability.

Key words: Community Pharmacist, Meningitis, medication.

Introduction

The community pharmacist is the globally accepted professional to cater the pharmaceutical care to the patients at the time of dispensing the medicine it self. This will correct the wrong practices in medicine usage and make the patient a partner in his improvement of health.Meningitis is an

inflammation of the meninges, the membranes that cover the brain and spinal cord. It is usually caused by bacteria or viruses, but it can also be caused by certain medications or illnesses. Bacterial meningitis is a life-threatening illness that results from bacterial infection of the meninges. Beyond the neonatal period, the 3 most common organisms that cause acute bacterial meningitis are *Streptococcus pneumoniae, Neisseria meningitidis,* and *Haemophilus influenzae* type b (Hib). The incidence of disease caused by *S pneumoniae* is highest in children aged 1-23 months and in adults older than 60 years. Predisposing factors include respiratory infection, otitis media, mastoiditis, head trauma, hemoglobinopathy, human immunodeficiency virus (HIV) infection, and other immune deficiency states. The emergence of penicillin-resistant *S pneumoniae* has resulted in new challenges in the treatment of bacterial meningitis. Before the 1990s, Haemophilus influenzae type b (Hib) was the leading cause of bacterial meningitis, but new vaccines being given to all children as part of their routine immunizations have reduced the occurrence of invasive disease due to *H. influenzae.*

There are vaccines against Hib, some serogroups of *N. meningitidis,* and many types of *Streptococcus pneumoniae.* The vaccines against Hib are very safe and highly effective. Some forms of bacterial meningitis are contagious. The bacteria are spread through the exchange of respiratory and throat secretions (e.g., coughing, kissing).Fortunately, none of the bacteria that cause bacterial meningitis are as contagious as things like the common cold or the flu, and they are not spread by casual contact or by simply breathing the air where a person with meningitis has been. However, sometimes the bacteria that cause bacterial meningitis have spread to other people who have had close or prolonged contact with a patient with meningitis caused by *Neisseria meningitidis* (also called meningococcal meningitis) or Hib.People in the same household or day care center, or anyone (such as a boyfriend or girlfriend) who has direct contact with a patient's oral secretions would be considered at increased risk of acquiring bacterial meningitis. People who qualify as close contacts of a person with meningitis caused by *N. meningitidis* should receive antibiotics to prevent them from getting bacterial meningitis.

Antibiotics for contacts of a person with Hib meningitis disease are no longer recommended if all contacts four years of age or younger are fully vaccinated against Hib disease. Enteroviruses, the most common cause of viral meningitis, are most often spread through direct contact with respiratory secretions (e.g., saliva, sputum, or nasal mucus) of an infected person. This usually happens by shaking hands with an infected person or touching something they have handled, and then rubbing your own nose or mouth. The virus can also be found in the stool of people who are infected. The virus is spread through this route mainly among small children who are not yet toilet trained. It can also be spread this way to adults changing the diapers of an infected infant. The incubation period for enteroviruses is usually between three and seven days from the time you are infected until you develop viral meningitis symptoms. You can usually spread the virus to someone else beginning about three days after you are infected up until about 10 days after you develop symptoms.
The viruses that cause viral meningitis are contagious. Enteroviruses, for example, are very common during the summer and early fall, and many people are exposed to them. However, most infected people either have no symptoms or develop only a cold or rash with low-grade fever. Only a small proportion of infected people actually develop viral meningitis. Therefore, if you are around someone who has viral meningitis, you have a moderate chance of becoming infected, but very small chances of developing viral meningitis. Because most people who are

infected with enteroviruses do not become sick, it can be difficult to prevent the spread of the virus. However, adhering to good personal hygiene can help to reduce your chances of becoming infected. If you are in contact with someone who has viral meningitis, the most effective method of prevention is to wash your hands thoroughly and often. Also, cleaning contaminated surfaces and soiled articles first with soap and water, and then disinfecting them with a dilute solution of chlorine-containing bleach (made by mixing approximately ¼ cup of bleach with 1 gallon of water) can be a very effective way to inactivate the virus, especially in institutional settings such as child care centers.

Role of community pharmacist care of meningitis patients

Pharmacists are uniquely positioned and most easily accessible healthcare professionals in the Community. Even in developing countries like India, most of the people communicate and take treatment advice on minor ailments from pharmacist only! Among all Healthcare Professionals, Pharmacist is the one who have wide compass and can communicate with people most effectively.Pharmacists are often the first point of contact for patients experiencing Meningities. As the most accessible health care professional, pharmacists have an important role to play in current situation. Community pharmacist is only healthcare professional who will interact with several individuals each day and this is major platform to communicate with common individuals. In India large number of patient pool goes directly to pharmacies and depends on pharmacist to tell them what medicines to take. Major role of community pharmacist is to educate consumers on preventive measures and disseminate concise and up-to-date information to the public. Bacterial meningitis is rare, but is usually serious and can be life-threatening if it's not treated right away. Viral meningitis (also called aseptic meningitis) is relatively common and far less serious. It often remains undiagnosed because its symptoms can be similar to those of the common flu. Kids of any age can get meningitis, but because it can be easily spread between people living in close quarters, teens, college students, and boarding-school students are at higher risk for infection. If dealt with promptly, meningitis can be treated successfully. So it's important to get routine vaccinations, know the signs of meningitis, and if you suspect that your child has the illness, seek medical care right away. Bacterial meningitis is a medical emergency -- immediate medical attention is required. Left untreated, the condition has a high death rate. Early diagnosis and treatment of bacterial meningitis are very important. If symptoms occur, the patient should see a doctor immediately. The diagnosis of bacterial meningitis is usually made by growing bacteria from a sample of spinal fluid. The spinal fluid is obtained by performing a spinal tap, in which a needle is inserted into an area in the lower back where fluid in the spinal canal is readily accessible. Identification of the type of bacteria responsible for bacterial meningitis is important for selection of correct antibiotics. Meningitis is an illness in which there is inflammation of the tissues that cover the brain and spinal cord.

Conclusion

Community pharmacist play important role in Prevention is the best way to avoid dealing with Meningitis. Meningitis is a potentially life-threatening infection of the meninges-the tough layer of tissue that surrounds the brain and the spinal cord. If not treated, meningitis can lead to brain swelling and cause permanent disability, coma, and even death. Meningitis can be caused by a variety of things, including bacteria (the most serious), viruses, fungi, reactions to medications, and environmental toxins such as heavy metals. Although bacterial and fungal meningitis require

extended hospitalization, meningitis caused by viruses can often be treated at home and has a much better outcome Bacterial meningitis can be treated with a number of effective antibiotics. It is important, however, that treatment be started early in the course of the disease. The prognosis for viral meningitis is much better than that for bacterial meningitis, with most people recovering completely with simple treatment of the symptoms. Because antibiotics do not help viral infections, they are not useful in the treatment of viral meningitis Usually, the brain is protected naturally from the body's immune system by the barrier the meninges creates between the bloodstream and the brain itself. Normally, this helps prevent the body from mounting an immune reaction to attack itself. In meningitis, however, this can become a problem. Once bacteria or other organisms have found their way to the brain, they are somewhat isolated from the immune system and can spread. However, when the body eventually begins to fight the infection, the problem can worsen. As the body tries to fight the infection, blood vessels become leaky and allow fluid, white blood cells, and other infection-fighting particles to enter the meninges and the brain. This causes brain swelling and can eventually lead to decreased blood flow to parts of the brain, worsening the symptoms of infection. Because meningitis can be so serious, seeking immediate medical care is essential if you experience the symptoms described above and think that meningitis could be the cause. Fever, headache, neck stiffness, and any change in a person's thinking. While taking someone to the hospital's emergency department or waiting for an ambulance, basic treatment involves these procedures: Give acetaminophen (Tylenol) for fever. Keep the person in a darkened, quiet area. If the person is vomiting, lay the person on one side to prevent him or her from inhaling vomiting. Home care is only recommended if the person has mild viral meningitis, which can only be determined by a spinal tap. If the doctor determines that the person is suffering from mild viral meningitis, medications may be needed for control of headache and fever. This is often accomplished with acetaminophen (Tylenol) or stronger pain medications. In patients with suspected meningitis the most important thing is to ensure that a bacterial cause, which is treatable, is not missed. Thus all patients with suspected meningitis must be referred to hospital immediately.

References

[1] Swartz MN. Meningitis: bacterial, viral, and other. In: Goldman L, Ausiello D, eds. Cecil Medicine. 23rd ed. Philadelphia, Pa: Saunders Elsevier; **2007**: chap 437.
[2] HPA - Notifications of Infectious Diseases (NOIDs). Health Protection Agency.
[3] Chadwick DR; Viral meningitis. *Br Med Bull*. **2006** Feb 10;75-76:1-14.
[4] Hviid A, Melbye M; *Epidemiology*. **2007** Nov;18(6):695-701.
[5] Logan SA, MacMahon E; Viral meningitis. *BMJ*. **2008** Jan 5;336(7634):36-40.
[6] Rafailidis PI, Kapaskelis A, Falagas ME; *Med Sci Monit*. **2007** Sep;13(9):CS107-109.
[7] de Almeida SM, Letendre S, Ellis R; *Braz J Infect Dis*. **2006** Feb;10(1):41-50.
[8] Lee BE, Davies HD; *Curr Opin Infect Dis*. **2007** Jun;20(3):272-7.
[9] Krous HF, Chadwick AE, Miller DC, et al; *Pediatr Dev Pathol*. **2007** Nov-Dec;10(6):463-9.