

Waters of death: Naegleria Fowleri (the brain eating Amoeba)

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Dear Madam, with the commencement of the monsoon season and temperature on the rise again, the incidence of Naegleria Fowleri (Brain-eating amoeba) is also on the rise. The death toll has risen to six in Karachi so far this year as it claims lives of a 19-year-old teenager and an 8-year-old boy adding to the previous 4 deaths out of which one was a 30-year-old neurosurgeon and another 8-year-old boy.¹ All of them had acquired this amoeba through contaminated water. A recent Karachi water and sewage board (KWSB) report disclose that 70% of its pumping stations are supplying water containing either no or low Chlorine, which is a major threat to the residents of Karachi.²

Naegleria Fowleri is an amoeba and causes a devastating brain infection known as primary amoebic meningoencephalitis (PAM). The amoeba is commonly found in warm freshwaters. It infects people when contaminated water enters the body through the nose while performing ablution (Wudu), swimming or bathing, and from there, it travels to the brain.³ (PAM) destroys the brain tissue, and its symptoms start in about five days including headache, fever, nausea & vomiting initially. The later symptoms include stiff neck, altered mental status, seizures, hallucinations and can rapidly progress to death.³ The recommended treatment for Naegleria include a combination of drugs including Amphotericin B (Anti-Fungal) and Miltefosine; however, few people survive, despite the treatment.⁴ (PAM) is difficult to detect because the disease progresses so rapidly that the diagnosis is usually made after death.

This is not the first time. Naegleria claimed five lives back in 2016 and many more previously,⁵ which raises a serious question on the efficiency and preventive measures taken by the concerned departments. The fact that the

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temperature in Karachi remains warm for the most part of the year and on top of the contaminated water supply (less chlorinated), is gravely concerning. Since prevention is better than cure, the general public must be made aware of Naegleria and advised to avoid swimming, bathing or performing ablution in unchlorinated water. Also, before the summer starts, people should get their underground and overhead water tanks cleaned and chlorinated. Along with warning people, measures should be taken by the responsible departments to make water safe for the citizens and prevent any further deaths by this lethal amoeba.

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References

1. Karachi reports fourth death of 2021 from Naegleria. [Online] [Cited 2021 July 12]. Available from: URL: <https://www.geo.tv/latest/359614-karachi-reports-fourth-death-of-2021-from-naegleria>.
2. Naegleria claims two more lives in Karachi, toll reaches six. [Online] [Cited 2021 July 12]. Available from: URL: <https://www.samaa.tv/news/2021/07/naegleria-claims-two-more-lives-in-karachi-toll-reaches-six/>.
3. Naegleria deaths: 70% of Karachi water supply not chlorinated. [Online] [Cited 2021 June 24]. Available from: URL: <https://www.samaa.tv/news/2021/06/naegleria-deaths-70-of-karachi-water-supply-not-chlorinated/>.
4. Parasites Naegleria fowleri Primary Amebic Meningoencephalitis (PAM) Amebic Encephalitis.[Online] [Cited 2021 March 12]. Available from: URL: <https://www.cdc.gov/parasites/naegleria>
5. Naegleria Infection. [Online] [Cited 2020 May 13]. Available from: URL: <https://www.mayoclinic.org/diseases-conditions/naegleria-infection/diagnosis-treatment/drc-20375474>.