



NAEGLERIA INFECTIONS

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Dear Editor,

I would like to present a compelling case report that highlights the significance of prioritizing safe ablution practices to prevent Naegleria infection, particularly in regions with warm freshwater sources. Naegleria Fowleri, commonly known as the brain-eating amoeba, is a thermophilic flagellate that can lead to Primary Amoebic Meningoencephalitis PAM. PAM is an acute and nearly universal fatal condition characterized by severe symptoms, including fever, severe headache, altered mental status, neck stiffness, nausea, vomiting, seizures, and coma¹.

This case involves a 22-year-old pregnant patient at 32 weeks of gestation who presented to the Emergency Department of Patel Hospital, Karachi with a fever, severe headache, nausea, and vomiting. The patient's condition deteriorated rapidly, leading to generalized tonic-clonic seizures. Despite aggressive medical intervention, the patient's clinical status worsened, eventually leading to brain stem death. In consideration of the viable fetus, a multidisciplinary team, including intensivists, obstetricians, and anesthesiologists, collaborated to perform an emergency lower segmental caesarean section under general anesthesia. An alive male baby was successfully delivered and transferred to the Neonatal Intensive Care Unit. Up until now there has been significant concern in Karachi, the largest city in Pakistan, due to an organism that has caused more deaths in a decade than the reported deaths from Naegleria in the US over fifty years². 6 deaths were reported in year 2022 and 3 deaths have been reported this year till present³. Among the cases reported in Pakistan, none have had a history of water sports or swimming. This suggests that the organism exists in the domestic water supply and causes infection through ritual nasal irrigation i.e. ablution⁴. A previous instance in 2014 involved Naegleria in the pregnant woman resulting in loss of both lives⁵. In the current case, the disease progressed rapidly, leading to brain death. A prompt decision was made, resulting in successful saving of the baby.

In a country like ours, which is already grappling with healthcare challenges such as dengue, malaria and COVID outbreaks, there is growing necessity to educate public about safe ablution practices. Contaminated water sources used for ablution can introduce this dangerous organism to the human body, leading to devastating outcomes. Chlorination and boiling of water emerge as essential defense mechanisms against N. Fowleri⁶.

In conclusion, this case highlights the convergence of public health initiatives and religious authorities to promote education about safe ablution practices. Preventive measures such as proper water treatment and boiling can substantially diminish the risk of Naegleria infections, ultimately saving lives.

Sincerely,

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