The danger period, when streptococcal pneumonia meningitis remains hidden and undiagnosed: Modeling the investigational decision process

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Background: When a patient presents with a symptom such as severe headache and only a mildly elevated WCC, the question as to whether prompt lumbar puncture (LP) is indicated gets raised. Whilst those with bacterial meningitis typically exhibit a triad of fever, neck stiffness and headache/altered mental status, the bulk of causes are non-infective. A danger period in the time course of the infection before procedures leading to full diagnosis are undertaken can be represented by Beta in an Alpha, Beta, Gamma investigational and therapeutic model of decision making.

Case: A 58 year old female presented complaining of headache, nausea and vomiting for 7 hours. The headache was frontal and sudden in onset. No photophobia was reported. On examination the patient was afebrile and normal on all examination. There were no signs of meningeal irritation. Her only abnormal investigation was a white cell count was 13.5/mcL. Notably the CRP was 5 u/l. Subarachnoid hemorrhage (SAH) was ruled out on brain CT scan. The question was posed “is this meningitis”? Soon after her return from the CT unit to the medical assessment unit (MAU) the patient dropped her GCS to 10/15. Lumbar puncture showed a raised WCC count with 92% polymorphs and 8% lymphocytes. Gram positive diplococcic and red blood cells were present in all three CSF samples. Streptococci pneumoniae were isolated on CSF culture.

Conclusion: Atypical presentation of pneumococcal meningitis can lead to significant mortality because of delay in diagnosis due to atypical symptoms.

Biography

Samar Abbas Jaffri has completed his HSC studies in 2002 from DJ Sindh Government Science College Karachi and received his primary Medical education from Baqai Medical University. He has joined Jinnah Postgraduate Medical Centre in 2009 for his Internship for 1 year. He has entered in FCPS (Pak)/MRCP (UK) training program at Medical Unit II, (Ward 6), Jinnah Postgraduate Medical Centre Karachi, Pakistan in 2011 and completed his UK Membership in 2015. He has starting working at St. Lukes Hospital, Ireland in July 2014 as a Medical Registrar, being promoted to Cardiology Registrar in July 2015.

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