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# A clinical study of meningitis in infancy and childhood

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(1) The material of study comprised 43 patients suffering from meningitis. Their ages varied between 3 months and 14 years. Every patient was subjected to careful history and a thorough clinical examination, including examination of the ocular fundi. Repeated C.S.F. examinations were carried out for every case. In addition, skull, chest and spine radiograms, and CAT scan were done whenever indicated. Follow up studies were carried out after hospital discharge whenever possible. (2) The results of this study showed that out of 43 cases of meningitis, 32 were pyogenic in nature (74.4%), 9 tuberculous (20.9%) and 2 probably of viral origin (4.6%). Meningococci were the commonest organisms and were isolated in 12 cases. Pneumococci were next in frequency (3 cases). Cases with gram negative bacilli (3 cases) were strictly infantile in nature. The remaining 12 pyogenic cases (37.5%) with negative C.S.F. culture had received antibiotics prior to admission to the hospital. Five of them showed typical C.S.F. picture of acute bacterial meningitis, one was proved to be 4 case of brain abscess, and the remaining 6 cases showed some deviation from the typical CSF picture of acute bacterial meningitis. (3) Five out of 9 tuberculous meningitis cases (55.5%) showed typical C.S.F. picture. However, the history, clinical examination, and different radiological investigations were consistent with tuberculous meningitis in the 9 cases. (4) The rapid benign course, the absence of antibiotic treatment prior to admission to hospital, the C.S.F. picture, and the negative C.S.F. culture suggested the diagnosis of viral meningitis in two cases. (5) In all cases of pyogenic and viral meningitis, the onset of the disease was acute. In tuberculous meningitis cases, it was gradual. The commonest presenting clinical feature in our cases was fever (100%). Other features according to the frequency of their occurrence were signs of meningeal irritation (83.7%), impaired sensorium (81.4%), motor system affection (76.7%), symptoms of increased intracranial pressure (74.4%), convulsions (62.8%), cranial nerve affection (60.5%), loss of sphincteric control (7%), conjugate eye deviation (4.7%), and cerebellar manifestations (2.3%). (6) Follow up studies for the fate of this studied group revealed striking observations. Six cases recovered completely (14%), 9 cases died (21%) with the mortality being highest among the first year age group, and 28 cases suffered from residual manifestations (65%). Spasticity was the commonest residual manifestation in complicated cases (78.6%). Cranial nerve involvement (64.3%), mental affection (39.3%) and hydrocephalus (21.4%) were the three next important sequelae of meningitis encountered in this study. All these

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sequelae were found to be commonest among the first year age group.(7) Early diagnosis was achieved in 9 cases only who were brought to the hospital immediately the parents noticed abnormal symptoms accompanying the fever. Six of them recovered completely and 3 died in the first 24 hours. The other cases came too late to the hospital either due to lack of appreciation about the seriousness of the presenting symptoms on the part of the parents or due to improper diagnosis by practitioners. Conclusion and Recommendation Meningitis is an illness in which diagnosis should be confirmed at the earliest possible moment, and followed by the immediate initiation of the proper therapeutic agents administered in the correct fashion. Unnecessary delay in start of treatment may alter the outcome in regard to both sequelae and mortality. These goals can be achieved only if one is armed with considerable knowledge of the disease and its management. Besides, every effort should be done to raise the socioeconomic and hygienic standard of our population, and to give basic knowledge of the principles of infection and prevention.