



Bacterial and viral meningitis

- Clinical manifestations, course and sequelae

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Introduction

Bacterial meningitis is a life-threatening disease. Survivors have a substantial risk of sequelae – including cognitive deficits. Dexamethasone has proven a beneficial adjuvant for the treatment of bacterial meningitis improving the outcome and reducing mortality. The effect on cognitive dysfunction remains unclear.

Viral meningitis is usually a self-limiting disease and patients may only have subtle cognitive deficits or none at all. However, little is known about long-term outcome of viral meningitis on cognitive function. The follow-up of patients with CNS infections is normally conducted with a main focus on the parameters of infectious diseases, whereas the neuro-psychological domain is seldom systematically evaluated.

In Denmark, the initial diagnosis and treatment of bacterial and viral meningitis needs improvement. Furthermore, after discharge, our knowledge of the long term effects on quality of life, including depression, fatigue and the patients working disabilities, is limited.

Objectives

- To assess self reported health, quality of life and working disabilities in adults up to ten years after an episode of bacterial or viral meningitis.
- To compare the outcome of these patients (viral vs. bacterial) regarding the clinical manifestations, neurological status, and the course of the disease.
- To evaluate administration and effects of additional treatment with dexamethasone in patients with bacterial meningitis.

Method

Patients with bacterial or viral meningitis admitted at Aarhus University Hospital from the 1st of January 1999 to the 31st of December 2008 (n=263) received a questionnaire from one to ten years following the episode of meningitis. The questionnaire included the following validated score-systems: SF-36 (self evaluated health), SCL-92 (emotional state), the Major Depression Inventory, the Fatigue Severity Scale and the Modified Fatigue Impact Scale. Socio-demographic and clinical data were extracted from the patients' medical files for further in-depth analysis. Patients with bacterial and viral meningitis were age- and sex matched and the results from the questionnaire were compared with the clinical data from hospital charts.

Results

Preliminary data analysis has revealed that a low rate of patients with bacterial meningitis was not given dexamethasone as recommended. Our results are pending.

Discussion

We hope our results may lead to an increased awareness of pre hospital treatment and initial treatment at the admission. In addition, this study may contribute to a better identification of the patients who could benefit from psychiatric assessment and treatment, as well as, job rehabilitation.