CEREBROSPINAL FLUID CONCENTRATION OF INTERLEUKIN-6 IN MENINGITIS

THESIS

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CONTENTS

INTRODUCTION	1
AIM OF THE WORK	2
REVIEW OF LITERATURE	
Anatomy and physiology	3
Meningitis	
Definition	6
History	6
Types of meningitis	6
Bacterial meningitis	
Causative organisms	8
Epidemiology	10
Predisposing factors	11
Pathogenesis and pathophysiology	
of bacterial meningitis	15
Pathogenesis of meningococcemia	21
Clinical manifestations	24
Complications	27
Laboratory diagnosis	35
Management	41
Prophylaxis	49
Viral meningitis	
Etiology and epidemiology	53
Pathogenesis and pathology	53
Clinical manifestations	55
Laboratory findings	56
Prognosis	56
Therapy	56

Cytokines	
Classification of cytokines	58
Interleukin-6 (IL-6)	
Structure of IL-6	60
Inducers and producers	60
Regulatory function of IL-6	61
IL-6 and disease	65
IL-6 as a diagnostic marker	68
Clinical application of IL-6	69
SUBJECTS AND METHODS	71
RESULTS	76
DISCUSSION	108
SUMMARY AND CONCLUSION	119
RECOMMENDATIONS	122
REFERENCES	123

LIST OF TABLES

Table (1): Symptoms and signs of acute septic meningitis (p. 27)

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Table (2): Typical CSF changes in various types of meningitis (p. 39)

Table (3): CSF findings (Gram's stain) and antibiotic selection (p. 44)

Table (4): Likely pathogens in bacterial meningitis by age (p. 45)

Table (5): Antibiotic dosing in bacterial meningitis (p. 46)

Table (6): The principle effect of different types of lymphokines (p. 59)

Table (7a): Clinical data for patients with bacterial meningitis (p. 78)

Table (7b): CSF findings for patients with bacterial meningitis (p. 79)

Table (8a): Clinical data for patients with viral meningitis (p. 80)

Table (8b): CSF findings for patients with viral meningitis (p. 81)

Table (9a): Clinical data for patients with T.B. meningitis (p. 82)

Table (9b): CSF findings for patients with T.B. meningitis (p. 83)

- **Table (10a):** Clinical data for control group (p. 84)
- **Table (10b):** CSF findings for control group (p. 85)
- Table (11): Comparison of CSF biochemical parameters between bacterial meningitis and control groups (p. 86)
- **Table (12):** Comparison of CSF biochemical parameters between viral meningitis and control groups (p. 87)
- **Table (13):** Comparison of CSF biochemical parameters between T.B. meningitis and control groups (p. 88)
- **Table (14):** Comparison of CSF biochemical parameters between bacterial meningitis and viral meningitis groups (p. 89)
- **Table (15):** Comparison of CSF biochemical parameters between bacterial meningitis and T.B. meningitis groups (p. 90)
- **Table (16):** Comparison of CSF biochemical parameters between viral meningitis and T.B. meningitis groups (p. 91)
- **Table (17):** Correlation between CSF IL-6 and each of TLC, Abs. poly, Abs. lymph, CSF glucose, CSF protein, clinical score and type of organism in bacterial meningitis patients (p. 92)
- **Table (18):** Correlation between CSF IL-6 and each of TLC, Abs. poly, Abs. lymph, CSF glucose, CSF protein and clinical score in viral meningitis patients (p. 93)
- Table (19): Correlation between CSF IL-6 and each of TLC, Abs. poly, Abs. lymph, CSF glucose, CSF pretein and clinical score in T.B. meningitis patients (p. 94)

LIST OF FIGURES

- Fig. (1): CSF circulation (p. 5)
- Fig. (2): African subsaharan meningitis belt (p. 12)
- **Fig. (3)** Shows the yearly admission of cases with meningococcal meningitis between November (1983) to October (1989) (p. 13)
- **Fig. (4)** Shows the cumulative monthly admission of cases with meningococcal meningitis between November (1983) to October (1989) (p. 14)
- Fig. (5): Pathophysiologic events during bacterial meningitis (p. 20)
- Fig. (6): Pathogenesis of meningococcemia (p. 22)
- Fig. (7): Pathology of viral meningitis (p. 55)
- **Fig. (8):** Sex distribution among all studied patients (p. 95)
- Fig. (9): Frequency of causative organisms among septic patients (p. 96)
- Fig. (10): Correlation between IL-6 and clinical score in patients with bacterial meningitis (p. 97)
- Fig. (11): Correlation between IL-6 and TLC in patients with bacterial meningitis (p. 89)
- Fig. (12): Correlation between IL-6 and TLC in patients with viral meningitis (p. 99)
- Fig. (13): Correlation between IL-6 and TLC in patients with T.B. meningitis (p. 100)

- **Fig. (14):** Comparison between mean values of TLC among all studied groups in relation to control (p. 101)
- Fig. (15): Comparison between mean values of absolute polymorphs among all studied groups in relation to control (p. 102)
- Fig. (16): Comparison between mean values of absolute lymphocytes among all studied groups in relation to control (p. 103)
- **Fig. (17):** Comparison between mean values of percentage of lymphocytes among all studied groups in relation to control (p. 104)
- Fig. (18): Comparison between mean values of glucose among all studied groups in relation to control (p. 105)
- Fig. (19): Comparison between mean values of proteins among all studied groups in relation to control (p. 106)
- **Fig. (20):** Comparison between mean values of IL-6 among all studied groups in relation to control (p. 107)

INTRODUCTION AND AIM OF THE WORK

Introduction:

Cytokines which are proteins secreted by macrophages and T-lymphocytes are powerful mediators in inflammatory response. They act not only as essential soluble cofactors in immunological responses, but are also responsible for inducing fever and the acute phase response (Dinarello et al., 1984).

Cytokines are assuming increasing clinical importance in understanding the pathogenesis and management of several infectious diseases, their continued study will bring new uses of this exciting group of molecules in the control of diseases (Powrie and Coffman, 1993).

Meningitis is an inflammation of membranes surrounding the brain and spinal cord. A very wide range of microorganisms varying in complexity from virus to bacteria have found in patients with meningitis, whether septic or aseptic (Cherry, 1981).

Sensitive immunoassays have shown appreciable concentrations of these cytokines in serum/plasma or effusions from the patients with some reactive or neoplastic disorders (Dinarello, 1991).

Recent reports indicate that interleukin-6 (IL-6) might be increased in cerebrospinal fluid of patients with meningitis, however, their clinical and biological roles are not fully elucidated (Rusconi et al., 1991).

Aim of the Work:

The aim of this study is to evaluate interleukin-6 in cerebrospinal fluid in cases of meningitis, correlating its concentration with severity of the disease and clinical outcome in cases of septic versus aseptic meningitis.