سامية محمد مصطفى



شبكة المعلومات الحامعية

# بسم الله الرحمن الرحيم



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سامية محمد مصطفي



شبكة العلومات الحامعية



شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم





سامية محمد مصطفى

شبكة المعلومات الجامعية

# جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

# قسو

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شبكة المعلومات الحامعية



بالرسالة صفحات لم ترد بالأصل



# BELL'S PALSY: POSSIBLE ETIOLOGY AND OUTCOME

## Thesis

Submitted in partial fulfillment for the Master degree in Neuropsychiatry



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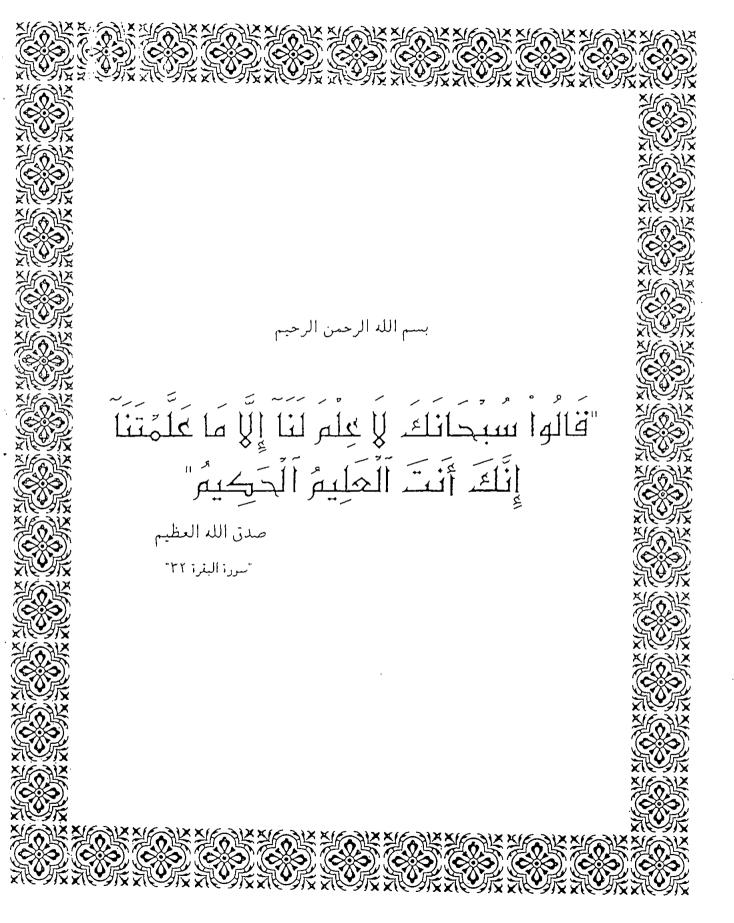
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# TO MY DEAR FATHER AND MOTHER FOR THEIR LOVE, GREAT HELP AND GUIDANCE.

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## CONTENTS

	SUBJECT	<b>PAGE</b>
I	INTRODUCTION.	1
II	REVIEW OF LITTERATEUR.	3
III	AIM OF THE WORK.	42
IV	PATIENTS AND METHODS.	43
V	RESULTS.	59
VI	DISCUSSION.	76
VII	SUMMARY AND CONCLUSION.	93
VIII	REFERENCES.	97
	ARABIC SUMMARY	

# INTRODUCTION

## INTRODUCTION

Our ability to communicate verbally and non verbally requires co-ordinated interaction of the muscles of articulation and facial expression. In art, the image of the face appears in pictographs on cave walls, on Roman coins and in Egyptian tombs, as well as in more recent depictions by Leonardo da Vinci and Pablo Picasso. We also use the face as a means of identifying each other. Therefore facial paralysis is an extremely disturbing condition for the patient and demands the time, understanding, and expertise of the physician (Kerbavaz et al., 1983).

Facial paralysis has numerous etiologies ranging from the most common, Bell's palsy [idiopathic facial nerve paralysis (IFNP)] and trauma to rare ones, tumors and congenital anomalies (Bleicher et al., 1996).

The pathogenesis of Bell's palsy has not yet been clarified and various hypotheses have been put forward, but none has been able to describe the process of the disease development based on any single factor (Omeri and Ikeda, 1994).

For many years, investigators have suspected the existence of a close relationship between Bell's palsy and viral infection (Aithen and Brain, 1993).

Since *McCormick* (1972) first hypothesized that herpes simplex virus could be a cause of Bell's palsy, herpes simplex virus particularly reactivation of herpes simplex virus typeI has been a popular theory and wide]y accepted as a possible cause (*Spotswood*, 1994).

Also among several hypotheses for the etiology of Bell's palsy is a circulatory disorder of the facial nerve. *Omori and Ikeda (1994)*., suspect that an abnormal blood coagulability could be a causal factor of circulatory disorders in the facial nerve.

Other etiologies of IFNP include ischaemic and diabetic vascular disease, autoimmune inflammatory disorders, idiopathic cranial polyneuropathy, familial inheritance or a combination of the preceeding factors (Austin et al., 1993).

It is exceedingly difficult to make a reliable prognosis in the early stages of Bell's palsy, because it is uncertain in any given case what the outcome might have been without treatment. The apparent advantages of various forms of therapy cannot be either verified or disproved (Adour and Wingerd, 1974).

The prognosis of Bell's palsy is based on symptoms, signs and laboratory data. In the case history, the presence of pain is important and associated diseases of the cardiovascular system and diabetes have to be taken in consideration, as has the age of the patient. The degree of paresis at initial examination proved to be relevant to the final outcome (Hyden et al., 1982).

The treatment of choice for Bell's palsy remains controversial. Steroid therapy and surgery are the two most common forms of treatment in use today, but convincing evidence is lacking that either modality has a beneficial effect on the natural history of Bell's palsy (Niparko, 1994).

# REVIEW OF LITERATURE

## ANATOMY OF THE FACIAL NERVE

A fundamental and detailed knowledge of the anatomy of the facial nerve is essential for localizing the level of the lesion. The course of the facial nerve is divided into 3 segments (Fig. 1).

- Supranuclear
- Nuclear
- Infranuclear segment which is further subdivided into: the cerebellopontine angle; interanl auditory canal, labyrinthine, tympanic, mastoid, and extracranial segments (Michael and Larry, 1994).

#### 1- Supranuclear segment

The tracts to the upper face are crossed and uncrossed while the tracts to the lower face are crossed only. Therefore, the forehead is bilaterally innervated so that if a lesion is present in the facial area on one side of the cortex, the forehead is unaffected. One must not rely solely upon sparing of the forehead to differentiate supranuclear from infranuclear lesions, in addition to no change in the functions of the upper face, supranuclear lesions are characterized by no deficit in facial tone or spontaneous facial expression but loss of volitional facial movement of the lower face and can also be identified by the presence of the other neurological signs of nervous system involvement but with nuclear and infranuclear lesions there is loss of both involuntary and voluntary movement (May and Shambaugh, 1991).