To my Parents,

sister Ommali ,

husband Elshafie ,

•

friends and those who spend their time teaching residents

I would like to express my deepest gratitude to my supervisor *Dr. Moutasim A. Alseed* consultant radiologist for his valuable guidance, helpful, suggestions and continuous encouragement and direction. I'm grateful to those colleagues who helps me in collecting the data and without their help this work would not have come out.

May almighty Allah make this research of special benefit to the development of health services in Sudan.

Entisar Rabih Mursi

List of Contents

<u>Contents</u>

Pages

Dedication i Acknowledgment ii **List of Contents** iii **List of Figure** iv **List of Abbreviations** v **Abstract (English)** vi **Abstract (Arabic)** Chapter One: Introduction 1.1 1 3 The objective of the study 1.2 Hypotheses 3 1.3 Content of the study 1.4 3 1.5 Anatomy and physiology 4 1.6 Pathology 20 Chapter Two: 1.1 CT 30 1.2 CT technique 33 38

2.3	Lat skull x-ray	
- 1	T	

Chapter Three:

Material and method 42

Chapter Four:

1.1Data presentation44

1.2 Discussion 48

Chapter Five

- 1.1 Conclusion
 - 51
- 1.2 Recommendation 53

Appendixes :

• Figure

54

• Images

58

• References

63

• Master sheet

65

List of Figure

<u>Contents</u>

<u>Pages</u>

54

55

Fig {1} Lateral aspect of the Skull	
-------------------------------------	--

Fig {2} The Middle Cranial Fossa	
----------------------------------	--

Fig {3} Diagram illustrating the Pituitary gland		
Fig {4} Feedback Control of growth hormone secretion	57	

Abbreviations

TSH	:	Thyroid stimulating hormone.
ACTH	:	Adeno-cortico-tropic hormone.
LH	:	Luteinizing hormone.
FSH	:	Follicle – simulating hormone.

GRH	:	Growth hormone – Releasing hormone.
-----	---	-------------------------------------

- LHRH : Luteinizing Hormone Releasing hormone.
- ADH : Antidiuretic Hormone.
- P/H : Prolactin Inhibitory Hormone.
- β LPH : Beta Lipotropin Hormone.
- POMC : Pro opiomelano cortin.
- IGF I : growth factor.
- C.T : Computerized tomography
- Ft : feet
- M : meter

Abstract

The sella turcica mass is a common disease, which do not arise from brain tissue itself, a very important group is that originating from pituitary gland.

The main objective of this study is to compare and evaluate the role of conventional x-ray as screening for diagnosis sella turcica mass. The study has been carried out during the period from Oct 2002 up to Sept 2003 at Modern Medical Center, Police Hospital, Salvation Medical KH and Elshab Hospital.

The researcher randomally collected data from 20 patients request forms with different clinical symptoms and average age between 10 up to 70 years.

The result showed that the 20 cases with the suggestion of sellar mass are classified as the following:

- 8 cases were pituitary adenoma [3 males + 5 females].
- 5 cases were parasellar masses [all cases males].
- 4 cases were suprasellar masses [2 male + 2 females].
- 3 cases were craniopharyngioma [all cases males].

The researcher found that 8 cases out of total cases showed widend of sella turcica shape and size on lateral skull x-ray

This enable more confident diagnosis to be entertained. Also it was possible through CT scan to stage the patients with sellar mass, while this was not possible by conventional x-ray.

As a conclusion conventional x-ray may, act as guide in some cases of sellar masses .

Never the less, CT gave more details informations about the lesion site, size, edge characteristic and lesion densi.