

**ANALYSIS OF PITUITARY TUMOURS: RETROSPECTIVE
STUDY AT CHRIS HANI BARAGWANATH AND CHARLOTTE
MAXEKE JOHANNESBURG ACADEMIC HOSPITALS,
1999-2008.**

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**A research report submitted to the Faculty of Health
Sciences, University of the Witwatersrand, Johannesburg, in
partial fulfillment of the requirements for the Degree of
Master of Medicine in the branch of Neurological Surgery.**

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DECLARATION

I, Kennedy John Matshana declare that this research report is my own work. It is being submitted for the degree of Master of Medicine in Neurological Surgery in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this or any other university.

..... **DAY OF** **Month, 2010**

DEDICATION

In dedication to my children Tebogo and Letlamoreng.

ABSTRACT

The purpose of this retrospective study was to review the patient records with regard to demographics, clinical presentation, laboratory tests, histology, management and outcome of patients presenting at Chris Hani Baragwanath and Charlotte Maxeke Johannesburg Academic Hospitals with pituitary adenomas over a ten year period from 1999 to 2008.

Methods: The patient records accessed included discharge summaries, admission files, laboratory results, imaging films, ophthalmology records and histology results.

The information gathered was analyzed in terms of the above mentioned parameters.

Results: There was a slight female preponderance at 55% vs 45% males, with a mean age of 46 years. 89% of the study population was of a Black race, reflecting the actual demographic pattern of the hospital population rather than the tumour prevalence in Blacks.

Visual disturbance (94%) and headaches (75%) were very common and reflected the late presentation of our patients. Features of hypopituitarism and hyperprolactinaemia were the commonest of hormone imbalances at 33% and 39% respectively. 80% of the total study population was treated by transphenoidal surgery. The remainder was mainly prolactinomas treated with oral dopamine agonists and those who refused surgery. 2% required transcranial approach while 13% received further radiation therapy.

Outcome was good with regard to improvement or resolution of headaches at 65%, while improvement in visual acuity and field defects were less satisfactory, with 51% showing improvement, and 44% remaining the same post operatively. This underlies the concern regarding late presentation of our patients with irreversible visual impairment.

100% of prolactinomas showed improvement or normalization of the prolactin levels with bromocriptine or cabergoline, however, of those who presented with hypopituitarism 43% required post operative hormone replacement in the form of cortisol acetate or prednisone and thyroxin.

Conclusion: Our patient demographics are similar to those published elsewhere, however, of great concern is the late presentation with irreversible visual impairment and hormonal imbalance. Government and community education, in a multidisciplinary approach is required to improve our situation.

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TABLE OF CONTENTS	PAGE
1. Introduction	1
1.1 Literature Review	2
1.1.1 Demographics	2
1.1.2 Clinical Presentation	3
1.1.3 Differential Diagnosis of a sellar mass	5
1.1.4 Aetiology/molecular biology	6
1.1.5 Pathology	7
1.1.6 Laboratory Results	8
1.1.7 Imaging	10
1.1.8 Management	12
2. Materials and Methods	16
2.1 Methodology	16
3. Results	17
3.1 Age	19
3.2 Other demographic profiles	21
3.3 Clinical presentation	23
3.4 Imaging	25
3.5 Hormonal profiles	26
3.6 Histology	27
3.7 Treatment	28
3.8 Complications	29
3.9 Outcome	30
4. Discussion	36
5. Conclusion	40
6. References	42

	LIST OF FIGURES	PAGE
1.	Figure 1. Summary of profiles of characteristics of patients of CMJHB and CHB Hospitals	17
2.	Figure 2. Profiles of pituitary tumour patients of CMJHB and CHB Hospitals	18
3.	Figures 3 & 4. Age distribution of combined groups	19
4.	Figure 5. Demographic profiles	21
5.	Figure 6. Clinical presentation profiles	23
6.	Figure 7. Imaging profiles	25
7.	Figure 8. Hormonal profiles	26
8.	Figure 9. Histological profiles	27
9.	Figure 10. Treatment profiles	28
10.	Figure 11. Complication profiles	29
11.	Figure 12. Outcome profiles	30
12.	Figure 13. Age distribution	35

LIST OF TABLES			PAGE
1.	Table 1.	Age distribution analysis	20
2.	Table 2.	Summary of parameters analysed	32
3.	Table 3.	Chi-squares analysis	34
4.	Table 4.	Comparison of age distribution with other studies	36

ACTH	-	Adrenocorticotrophic Hormone
ADH	-	Anti-diuretic hormone
CHB	-	Chris Hani Baragwanath Hospital
CMJHB	-	Charlotte Maxeke Johannesburg Academic Hospital
CNC	-	Carny Complex
CRH	-	Corticotropin Releasing Hormone
CT	-	Computed Tomography
DI	-	Diabetes Insipidus
FSH	-	Follicle Stimulating Hormone
FR- α	-	Folate Receptor Alpha
GH	-	Growth Hormone
IGF-1	-	Insulin Like Growth Factor 1
LH	-	Lutenising Hormone
MEN-1	-	Multiple Endocrine Neoplasia
MRI	-	Magnetic Resonance Imaging
SIADH	-	Syndrome of Inappropriate ADH
SSR	-	Somatostatin Receptors
TFT	-	Thyroid Function Tests

PATIENT NAME: _____

HOSPITAL NUMBER: _____

AGE: _____ **SEX:** _____ **RACE:** _____

CLINICAL PRESENTATION:

1. Vision
2. Headache
3. Hormonal imbalance

RADIOLOGY:

Hardy Type:

LAB RESULTS:

1. Prolactin
2. Growth Hormone
3. Cortisol
4. Thyroid Function Test

HISTOLOGY:

MANAGEMENT:

1. Surgical
 - a) Transphenoidal
 - b) Transcranial
 2. Medical
-
3. Surgical and Medical
-
4. Radiation
-

COMPLICATIONS:

1. Bleeding
2. Diabetes Insipidus
3. Cerebral Salt Wasting
4. Syndrome of Inappropriate Anti Diuretic Hormone

OUTCOME:

1. Headache
2. Vision
3. Hormones