

MRI OF SPACE OCCUPING LESIONS OF THE SELLA TURCICA

Essay

Submitted for partial fulfillment of the
Master Degree of the Radiodiagnosis

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1994

To...

My Father

**I wish to express my thanks and deepest gratitude
for his tolerant support and appreciable help
forever.**



Acknowledgment

Thanks to Allah

I would like to express my utmost gratitude and thanks to the eminent Prof. Dr. Saad Ali Abdrabou, Prof. of Radiodiagnosis, Faculty of Medicine, Ain Shams University, for his generous help and scrupulous supervision and for having devoted to me much of his precious attention and sincere advice.

I do feel deeply indebted to Prof. Dr. Zeinab Abdalla, Prof. and Head of the Radiodiagnosis Department, Faculty of Medicine, Ain Shams University, for her support and valuable remarks that have been of utmost help.

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- 24 (A) There is a high-signal-intensity intrasellar and suprasellar mass on the coronal T1-weighted image (TR/TE= 500/ 20). (B) The sagittal image confirms this appearance. A normal pituitary is not definitely seen. (C) The T2-weighted axial image (TR/TE= 2500/80) reveals a low-signal intensity abnormality, establishing the lipid or fatty nature of this lesion. This Rathke's pouch cyst has a similar signal intensity as might be expected with an intrasellar craniopharyngioma. 94
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- 28 (A) A mixed, low-signal-intensity abnormality is shown in the right parasellar region on this T1-weighted coronal image (TR/TE= 700/17). There is an associated mass effect that displaces the lateral dural margin (arrows), impresses the right pituitary (arrow head), and extends upward into the suprasellar cistern (long arrow). (B) There is a larger low-signal-intensity abnormality from the flow void in the aneurysm of the cavernous carotid artery. A large "zipper" artifact (arrows) extends horizontally across the sellar region on this T2-weighted image (TR/TE= 3000/90). This represents a pulsation artifact that occurs in the phase-encoding axis. (C) The postcontrast T1-weighted image shows enhancement in the enlarged cavernous sinus. This enhancement rims the lower-signal-intensity aneurysm (arrow). The pulsation artifact is not as evident due to the shorter TE of the T1-weighted image. 103
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Introduction

INTRODUCTION

The pituitary, appropriately titled the master gland, produces six major hormones, and secretes additional two hormones. Growth hormone (GH) regulates growth and has important influences on intermediary metabolism; prolactin (PRL) is necessary for lactation; Luteinizing hormone (LH) and follicle-stimulating hormone (FSH) control the gonads in men and women; thyroid stimulating hormone (TSH) - thyrotropin - controls the function of the thyroid gland; adrenocorticotrophic hormone (ACTH) is responsible for controlling glucocorticoid function of the adrenal cortex. These hormones are all synthesized in the anterior pituitary.

Anti-diuretic hormone (ADH), arginine, vasopressin, and oxytocin are produced in neurones of the hypothalamus and stored in the posterior lobe of the pituitary gland. ADH controls water conservation by the kidneys, while oxytocin is necessary for milk letdown during lactation (*Daniels et al., 1988*).

The radiographic investigation of sellar and parasellar lesions has undergone rapid change in the last several years. High-resolution C-T scanning was replaced invasive