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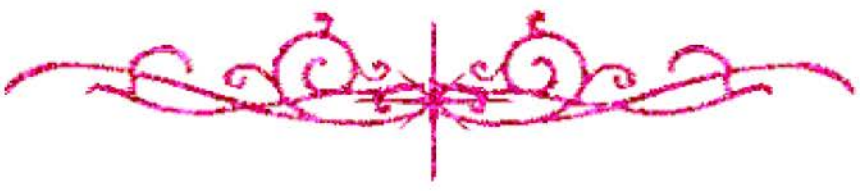

بالرسالة صفحات لم ترد بالأصل

Evaluation of Tumor Resection and Optic Apparatus Decompression in Cases of Supra-sellar and Parasellar Meningioma using Different Surgical Modalities

Thesis

For partial fulfillment of the M.D. degree in Neurosurgery

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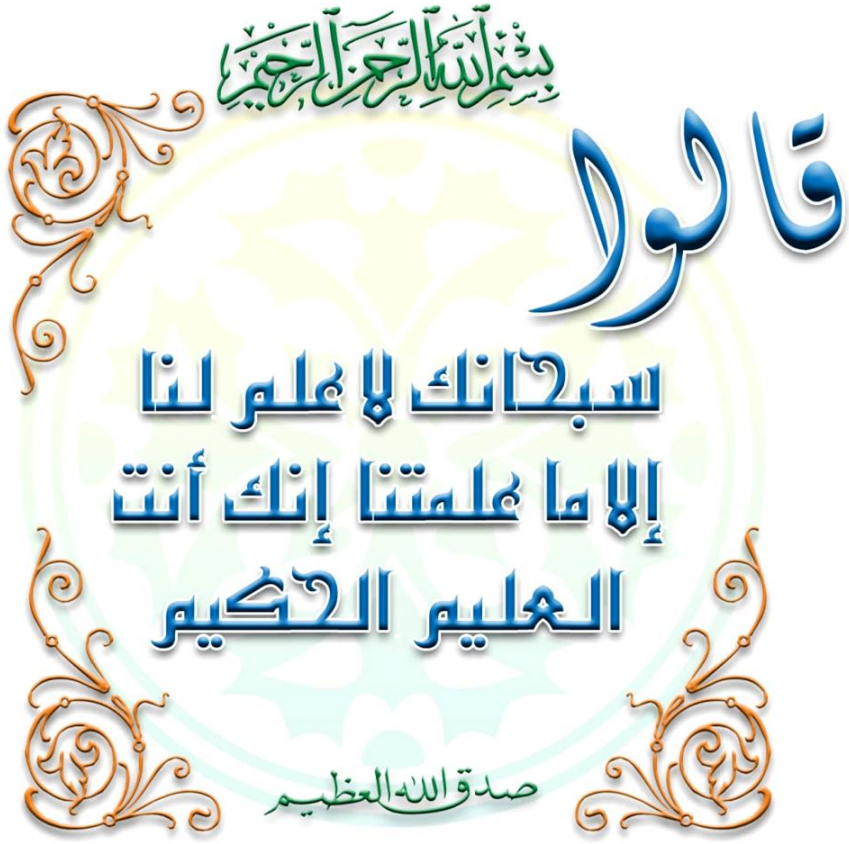

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List of Abbreviations

ACA	: Anterior cerebral artery.
AcomA	: Anterior communicating artery.
CBC	: Complete blood count.
ADC	: Apparent diffusion coefficient.
CSF	: Cerebro-Spinal Fluid.
CT	: Computed tomography.
DVT	: Deep venous thrombosis.
EMA	: Epethelial membrane antigen.
ER	: Estrogen receptors.
FLAIR	: Fluid attenuated inversion recovery.
HPFs	: High power fields.
ICA	: Internal carotid artery.
ICP	: Intra-cranial Pressure.
ICU	: Intensive care unit.
MRI	: Magnetic resonance imaging.
MRS	: Magnetic resonance spectrography.
NAA	: N- acetyleaspartate
PR	: Progesteron Receptors.
PXR	: Plain roentgenogram.
SD	: Standard Deviation.
STA	: Superficial temporal artery.
WHO	: World Health organization.

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Introduction

Meningiomas are the most common primary brain tumor and comprise nearly one-third of all newly diagnosed primary brain tumors. Meningiomas are thought to be arachnoid cap cell derived and are dural (intracranial extraparenchymal) in location. Meningiomas are most common in the elderly although they occur at all ages, majority of patients are female (there is a 60:40 female to male ratio in intracranial meningioma).The prevalence of Meningioma is estimated to be ~97.5/100,000 in the United States, with more than 160,000 individuals currently diagnosed with this tumor ***(Rogers L, et al. 2015).***

The majority of meningiomas are supratentorial, with a large number located along the convexities. Approximately 17 to 25% occur in a frontobasal location; however, only about 10% occur in the posterior fossa. Within the frontobasal region, the olfactory grooves, tuberculum sellae and parasellar region, and the petrous bone are preferred sites. Approximately 5% occur along the cerebellar convexity, 2 to 4% at the tentorium cerebelli and 2 to 4% within the cerebellopontine angle. Uncommonly,

meningiomas are found within the ventricular system or arise within the optic nerve sheath ***(Buetow MP, et al. 1991).***

Meningiomas of the suprasellar region involving the tuberculum sellae, anterior clinoid processes, diaphragma selae, and planum sphenoidale are rare tumors that have proved difficult to treat, partly because of their intimate association with the optic nerves and chiasm, hypothalamus, and internal carotid arteries ***(Zhao-Feng Lu et al ,2013).***

The advances in diagnostic techniques and instrumentation have led to an increase in the identification of incidental meningiomas which account for almost half of the meningiomas diagnosed in the growing elderly population. The intimate relationship between Supra-sellar meningiomas and the optic apparatus characterizes the clinical picture of chiasmatic syndrome (visual field defect).

Other clinical symptoms usually correlate with the size of the tumor and its extension. Extension of the tumor into the cavernous sinus region may result in associated cranial neuropathies ***(Kuratsu J, et al. 2000).***

Occasionally some of the tumors extend to the middle temporal fossa and may enlarge laterally to compress the temporal lobe, resulting in seizures, or may even compress