RECENT ADVANCES IN ENDOSCOPIC MANAGEMENT OF FRONTAL SINUSITIS

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By

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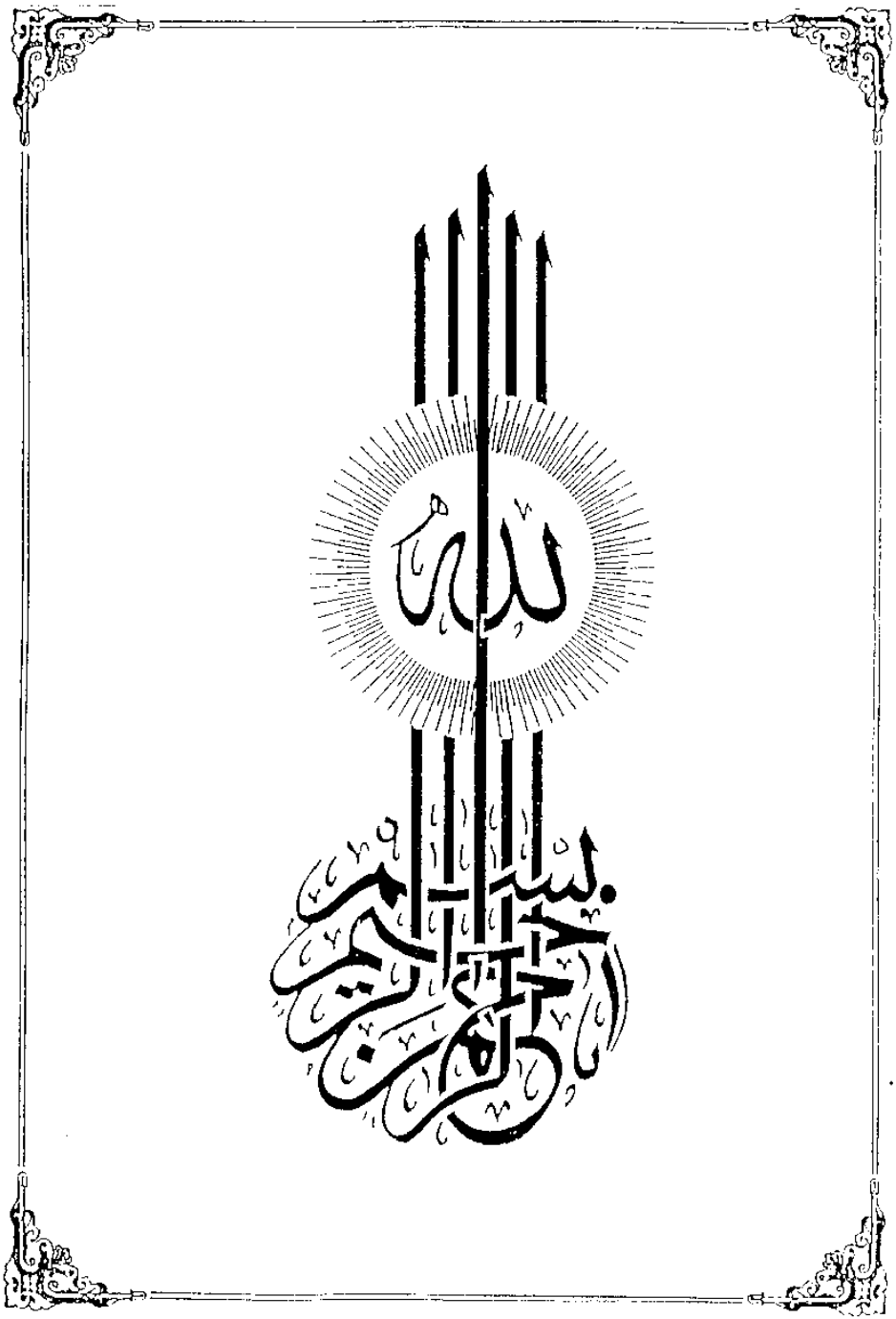

بسم الله الرحمن الرحيم

قالوا سبحانك لا علم لنا إلا ما علمتنا إنك أنت العليم الحكيم

صدق الله العظيم

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INTRODUCTION

Sinusitis has become the number one chronic illness for all age groups in the United States according to the National Center for disease Statistics. Approximately one in eight persons suffers from sinusitis at some time in his or her life *(Lazar et al., 1992)*.

With the advent of functional endoscopic sinus surgery (F.E.S.S.) considerable attention has been directed toward analysis of paranasal sinus anatomy through computerized tomography. As variations and anomalies of anatomic structures of the sinuses have been implicated in the etiology of chronic, recurrent sinusitis C.T. of paranasal sinuses has become routinely used in evaluation of patient with sinus like complaint. The true prevalence, suspected pathogenicity and clinical significance of the bony paranasal sinus anatomic variations has therefore come into question *(Bolger et al., 1991)*.

Conventional wisdom mandates that a patient with recurrent episodes of frontal sinusitis unresponsive to medical therapy undergo an external surgical approach for drainage or obliteration of the sinus. With the advent of endoscopic surgical techniques, however, internasal access to the obstructed sinus is possible. The blocked nasofrontal duct can be visualized and opened to reestablish frontal sinus drainage *(Metson, 1992)*.

The efficacy of endoscopic treatment for chronic frontal sinus disease has been suggested by ***Kinnedy et al. (1989)***, who drained eight frontal sinus mucoceles with an intranasal approach there were no recurrence after a 6 to 16 months follow up.

Schaeffer and Colse, (1990) treated 36 patients with frontal sinusitis using an endoscopic approach. Twenty one had complete resolution of their symptoms with a minimum 9 months follow up.

In conclusion, these results demonstrate the initial success of endoscopic treatment of frontal sinusitis, however, the long term efficacy of this relatively new form of therapy awaits future determination *(Metson, 1992)*.

Duvoisin and Schnyder, (1992) found that frontal sinusitis was noted in 78 (85%) of 92 cases of frontonasal duct abnormalities, while isolated frontal sinusitis was detected in five (2%) of 267 cases with normal frontonasal duct. So it seems highly probable that abnormalities of the frontonasal duct cause frontal sinusitis.

Earwaker, (1993) found that an equal prevalence of patient with and without sinus disease was found in the presence of anatomic variations, singly or in combination, does not represent a disease per se.

AIM OF THE WORK

The aim of this assay is to revise the anatomical variations of the frontal sinus and its drainage and the effect of these variations on the pathogenesis of frontal sinusitis, also to revise the recent methods in management of frontal sinusitis. In this way the following points will be reviewed:

1- Anatomy and development of frontal sinus.
2- Drainage of frontal sinus, its variations and its role in causing frontal sinusitis.
3- Physiological aspects of frontal sinus specially mucociliary mechanism, and the pathology resulting from disturbance of this mechanism.

4. Frontal sinusitis its etiology, clinical picture and complications.
5- Methods of diagnosis stressing on the role of C.T. scan and endoscopic examination.
6- Conventional surgical management of frontal sinusitis, its advantages and disadvantages.
7- Recent advances of endoscopic frontal sinus surgery, its advantages over conventional methods and the possible complications.