

In this study we found most of pituitary macroadenomas were isodense (76%), while they were hyperdense in 17.3% of patients. Good enhancement with contrast study was seen in 85.7% and by comparing these results with those of other studies we found it similar (Chakares et al., 1990 and Leeds et al. 1977)^[30,31].

Histopathology

On the basis of staining properties of the cell cytoplasm, pituitary adenomas were previously defined as one of three morphological entities, chromophobic, acidophilic and basophilic adenomas. Since the tinctorial characteristics of the adenoma cells cannot be correlated reliably with the cell type, secretory activity or cytogenesis, this basis for classification is no longer considered useful (Kamal et al., 1995)^[1].

In spite of what is said above, above, our histopathological labs continue to use the same type of morphological classification according to the staining property with hematoxylin and eosin, which revealed that chromophobe adenoma comprise about 56.3%, whereas acidophilic adenomas account for 41.8% and basophilic adenomas 1.3%. By comparing with other series (Wilson et al., 1978 and Tindall et al., 1995, found that chromophobe adenomas account for 75%, whereas acidophilic adenomas about 17%^[32,33], this indicate that in our study chromophobe adenoma is much less, this could be due to the poor preparation of the histopathological section. Regarding basophilic adenomas, the result coincides with those of other series of 1-2%.

Macroscopically the consistency of pituitary adenomas is classified into either cystic (partial or complete) and solid. In this study, pituitary adenomas were cystic in 14.5% which is somewhat similar to those of other studies (18-20% by Asa et al, 1993)^[34].

Regarding the texture, soft suckable pituitary adenoma was detected in 89%,

which is almost the same compared with other series, (92% by Kamal et al., 1995)^[1].

Aggressive invasive pituitary adenoma was detected in 9.1% of all types of pituitary adenomas, 50% of them were acidophilic.

Operative findings and surgical management

Regarding the optic chiasm, normal position of the chiasm was found in 89.1%, prefixed chiasm in 2.1% and postfixed chiasm in 8.6% of cases. By comparing with other studies, the percentage were 80%, 9% and 11% respectively (Tindall, 1995)^[33], and 70%, 15% and 15% respectively (Albert et al., 1995)^[35] which indicate approximately similar results. Regarding extension of the pituitary adenomas we detected that during operation the incidence of tumor extension was 86.9%. Whereas preoperative C.T scan reported 82.6% tumor extension. This indicates that C.T scan is not 100% accurate in the diagnosis of extension.

In the series of Wilson & Demsey (1978)^[32], 48.4% pituitary adenomas were confined to the sella tursica, significant suprasellar extension was observed in 34.8%, infrasellar extension in 17.6% and both in 6.8% of cases. In this study, suprasellar extension was seen in 86.6%, whereas infrasellar extension in 22.2% of cases. The increase in the incidence of suprasellar extension may reflect a delay in the diagnosis, and the higher number of non-functioning pituitary adenomas.

As regard to the surgical outcome in both approaches, many series were reviewed regarding the mortality rate and these were ranging from 1.4 - 35% in transcranial subfrontal approach, and from zero to 1.5% following trans-sphenoidal approach (Tindall et al., 1986)^[2]. In our study, 3 patients died (5.4%) all of them following transcranial approach, while there was no mortality following trans-sphenoidal approach.

Regarding patient's condition following the operation we found that 83.3%