VASCULAR LESIONS IN PITUITARY ADENOMAS*

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The textbook picture of a disease is developed by isolating schematically its salient features from a large variety of clinicopathologic observations and by attempting to reduce them to a common denominator. This endeavor of systematization certainly gratifies the urge of logical thinking, but by its arbitrary simplification tends to construct a fixed pattern which is only reluctantly discarded if new and perhaps contradictory facts are discovered.

A good example of such a situation is found in our state of knowledge concerning hypophyseal adenoma. The well-known textbook concept of this type of neoplasm dates back to Cushing’s classical description. With growing experience, however, confusing and therefore neglected variants of the disease had to be reconsidered. Jefferson, for instance, gave an excellent analysis of unusual pituitary adenomas with extrasellar extension.

In this article we propose to depict another aspect of the kaleidoscopic pituitary syndrome, viz., the vascular lesions occurring in pituitary adenoma. Knowledge of this condition is by no means new, and sporadic reports may be found even in the older literature. Brougham, Heusner, and Adams deserve credit for having collected all these reports; and on the basis of 5 new observations have redirected our attention to the problem. Since their publication we were able to find 3 additional articles dealing with this subject.

The paucity of references in the literature may have created the impression that vascular lesions in pituitary tumors are very rare; but the discussion following the delivery of our paper at the Harvey Cushing Society meeting in April 1951 convinced us that similar cases are not exceptional at all, and that they pose challenging diagnostic and therapeutic problems. Whereas Brougham, Heusner, and Adams’ paper dealt with 5 clinicopathologic observations verified by autopsy, we wish to present in full 3 clinical cases with favorable outcome. The first case was seen by one of us at the University of Michigan Hospital. The other two observations were made in private practice.


History. The patient had been in good health except for amenorrhea which followed appendectomy 15 years ago. Two weeks prior to admission, she complained

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‡ We wish to express our appreciation to Dr. E. A. Kahn who kindly permitted us to publish this case.

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of severe right supraorbital headache and difficulty in elevating the right upper eye-lid. Within a few days, vision of the right eye gradually declined, finally progressing to total blindness. She became confused, restless, and, on the day before admission, lapsed into a semicomatose state.

*Examination.* The patient was semicomatose, disoriented, incoherent, and resistive. Temperature 105.6°; pulse 130; respirations 16. B.P. 90/70. Her skin was of unusually fine texture, white and dry. Pubic and axillary hair were absent. There was marked nuchal rigidity and Kernig's sign was positive bilaterally. Both pupils were fixed to light, the right one being dilated. There was also a right-sided ptosis of the upper lid and divergent strabismus indicative of a 3rd nerve palsy. The patient did not respond to light stimuli. The fundi showed slight blurring of the nasal disk margins. She moved all her extremities spontaneously and equally. The plantar responses were extensor, and a right-sided Rossolimo sign was present. The abdominal reflexes were absent.

The clinical impression was that of spontaneous subarachnoid hemorrhage, probably from ruptured basal aneurysm on the right.

**Fig. 1.** (A) *Case 1.* Enlarged sella. (B) *Case 2.* Arteriogram. Note slightly erect and opened carotid siphon. (C) *Case 3.* Intrasellar erosion. (D) *Case 3.* Recalcification and reduction in size of the sella following x-ray therapy.