

## **Recovery From Post-Traumatic Anterior Pituitary Insufficiency**

Usually, it is assumed that traumatic damage to the hypophysis persists and is barely reversible, except when the damage is due to an acute condition, such as diabetes insipidus. Eiholzer et al describe a patient in whom the sequelae of a severe trauma disappeared after many years.

At 7 years of age, the patient was in a car accident and was comatose for four months. His condition improved after insertion of a ventriculo-atrial shunt. A discrete spastic tetraparesis persisted, as did insufficiency of the anterior hypophysis, which led to

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progressive growth retardation. The provocative tests showed an unsatisfactory response to growth hormone (GH). Plasma testosterone was low, and a secondary hypothesis was established. The child received replacement therapy for his endocrine deficiencies, and his growth rate was promptly normalized. A spontaneous increase in testicular volume was observed when the patient was 17 years old, and treatment with testosterone and human growth hormone (hGH) was discontinued. Two years later, treatment with thyroxine was stopped.

Eiholzer U, Zachmann M, Gnehm HE, Prader A. *Eur J Pediatr* 1986; 145:128-130.

**Editor's comment**—*Post-traumatic deficiencies of the adenohypophysis arise in the following different ways: through hypothalamic lesions, following denervation due to damage of the stalk, by interruption of the long portal vessels, and by lesions directly affecting the anterior lobe. In the present case, the hypothalamic origin of the hormone deficiency could be excluded since the administration of thyrotropin-releasing hormone (TRH) did not produce an increase of thyroid-stimulating hormone (TSH). Apparently the pituitary was touched directly. The presupposition for the gradual recovery that was observed is the reinnervation of the stalk, the recanalization of the portal vessels, the regeneration of the necrotized pituitary tissue, or a combination of these (as shown in animal experiments conducted by Daniel and Prichard in 1975). The observation is especially important to the clinician, since it demonstrates that the pituitary may not be permanently damaged after a severe acquired lesion and that the function of the gland should be checked repeatedly after such a trauma.*

Jürgen R. Bierich, M.D.