

plate is joined to an acrylic base plate so as to form the vertical branch of an L-shaped structure. The arrangement permits the operator to slide the drill guide in a plane parallel to the steel plate. This plane coincides with the median plane of the fish, which is accommodated in a V-shaped groove in the base plate.

A drill of 2.4 mm diameter is connected to a high-speed drilling machine. The drill shaft should be provided with an adjustable stop, preventing the drill from protruding excessively from its guide. A suction cannula, O.D. 1.0 mm, bent 60° 5 mm from its free end, is connected to a water suction pump. A finely pointed forceps serves as a self-retaining retractor.

Procedure. After anaesthesia in MS-222 (Sandoz, 1:3000), the fish is placed back downwards in the base plate's groove. By help of the closed forceps, the thin midline membrane of the lower jaw is perforated just in front of the lingual apex. The opening is bluntly enlarged to admit the drill guide. The guide is directed to the mid-point of an imaginary line connecting the caudal orbital rims, where the parasphenoid prominence is concealed by a mass of soft tissues. The prominence must be captured by the oblique opening of the guide, which is facilitated by carefully sliding the guide along the parasphenoid ridge. When the prominence is securely hooked within the tube's opening, the tube is depressed slightly to fix the skull rigidly. When correctly positioned, the tube forms an orally acute angle of 60° with the base of the skull.

The drill stop is adjusted to permit cutting of a 0.5–2.0 mm deep hole, depending on the size of the fish. The drill must traverse the soft tissues and the parasphenoid prominence but it should not damage the contents of the myodome. With experience, the drill stop may be discarded.

When the myodome has been opened, the drill is removed without changing the position of its guide. The

suction cannula is introduced via the fish's mouth and the guide's aperture. Tissue debris is removed under supervision from the guide's upper end, through which the parallel bellies of the rectus externus muscles then are discernible. The closed forceps is introduced between the muscles and allowed to separate and retract them. The white spheroidal hypophysis presents itself in the field once the muscles are retracted. It is removed with the suction cannula. The drill guide is then removed and the fish returned to its tank without further treatment.

Evaluation. The operation is performed in less than 2 min and craves no particular skill. If the guide is correctly positioned, there is small risk of damaging the large vessels posterior and lateral to the prominence. It is not necessary to close the entrance to the myodome as the soft parts heal rapidly. The extent of trauma is minimal. Asepsis is unnecessary, as is gill washing.

The mortality was less than 4%. Most deaths occurred on the day of surgery and were mainly due to hemorrhage from within the myodome. The fishes were observed up to 3 weeks postoperatively. Less than 2% proved incompletely hypophysectomized when checked under high magnification at autopsy. To date, more than 300 fishes have been operated on.

Zusammenfassung. Eine Schnellmethode (2 min) für Hypophysektomie an Kleinfischen wird beschrieben. Durch die Benutzung eines gesteuerten Bohrers wird das Freilegen der Hypophyse vereinfacht. Die kombinierte Mortalität und Fehlschlaghäufigkeit beträgt weniger als 5%.

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CONGRESSUS

Germany

2nd International Symposium of Pharmaceutical Chemistry

in Münster (Westfalen), 22–26 July 1968

Principal themes: (1) Non-steroid drugs with anti-phlogistic effect. (2) Drugs with analgetic effect. (3) Drugs with effect on circulation and heart function. (4) Chemotherapy of parasitic infections. (5) Metabolism of drugs.

Programme and further information from: Sekretariat des 2. IUPAC-Symposiums "Pharmaceutical Chemistry", Hitdorfstrasse 58–62, 44 Münster, Westfalen (Germany).

Poland

10th International Congress of Internal Medicine

in Warsaw, 10–14 September 1968

Principal themes: (1) Enzymatic mechanisms in the pathogenesis of internal disorders. (2) Disturbances in protein metabolism.

Secondary themes: (1) Ethical, legal and social problems in modern therapy and clinical research. (2) Mathematical methods in internal medicine. (3) Rehabilitation in internal medicine. (4) Recent developments in internal medicine.

Programme and further information from: Department of Medicine, Institute for Postgraduate Medical Education, ul. Solec 93, Warszawa 30 (Poland).