29. Application of Adhesive Cyano-Acrylate Monomer into Neurosurgical Operative Technique

Kinjiro IWATA, Norihide NAKASHIMA, Masamitsu NAKAJIMA, Saburo
WATANABE, Makoto TOMIYASU, Bunsaku SAKAKIBARA,
Koji NAKAMURA and Kazuo USUI

1st Surgical Department, School of Medicine, Nagoya University

In the last meeting of this neurosurgical society, we reported the use of polyflon coated tetoron mesh as dural substitute. Furthermore, we studied the application of adhesive-cyanoacrylate monomer into surgical technique, we found its usefulness through the animal experiments and we have been applying it on clinical cases of neurosurgery since September of 1962. The number of clinical cases with this technique reached over 40 by April of 1963 and we have found it very satisfactory without any serious complications.

We now feel the application of this technique unexpectedly wider, and followings are the attempted ones by present time:

- 1) Patching of dural defect with dural substitute—polyflon coated tetoron mesh.
 - 2) Repair and closure of cerebrospinal fluid leakage, especially of basal skull fracture.
 - 3) Repair and hemostasis of dural venous sinus injury.
 - 4) Hemostasis and control of tumor bed of base of skull, from where meningioma or other neoplasm were removed.
 - 5) Repair and fixation of fragments of depressed skull fracture, and fixation of craniotomy bone flap in place.
 - 6) Prevention of re-closure of craniectomized craniostenosis skull.
- This adhesive is made in Japan as well as our polyflon coated tetoron mesh.

30. The Ascending Pathways from the Paraalar Nucleus in the Cat

Ryotaro KURODA and Tooru HAYAKAWA

2nd Surgical Department, Osaka University Medical School

Masaru KURU

National Cancer Center Hospital

Under sodium thiopental anesthesia, 18 cats were operated on to make a re-

stricted lesion in the paraalar nucleus. After the posterior craniotomy, the caudal part of the cerebellum was lifted up to expose the dorsal surface of the medulla. A small lesion was made by sharp knife or blending knife along the lateral edge of the ala cinerea at the level about 2 mm cranial to the obex.

Animals were survived for the period of 10-14 days and then sacrificed to examine histologically.

The degenerated fibers from the paraalar nucleus were traced by Marchi stain.

The ascending degenerated fibers from the paraalar nucleus participate in the medial portion of the internal arcuate fibers and some taking its course in the dorsal arcuate fibers. They both enter the interolivary areas of the opposite side and ascend rostrally in the median part of the classical median fillet. At the caudal level of the thalamus, it can be observed the degenerated fibers swing its course dorsolaterally along the fasciculus retroflexus Meynert from the medial fillet and terminate in the arafascicular nucleus, the centre median nucleus and perhaps other intralaminar nuclei, too.

We have concluded that the secondary fiber of the pelvic sensory vagus participate in the medial part of the medial fillet of the opposite side and terminate in the intralaminar nuclei of the thalamus.

31. Effect of Simultaneous Stimulation of the Vesicomotor Centers in the Hypothalamus, Pons and Medulla Oblongata upon the Vesical Movement

Naoji TAKEUCHI, Kiyota SHIMOYAMA, Yoshikuni MOROI, Kikushi KATSURADA, Kanji NODA and Heitaro MOGAMI

Dept. of Surgery, Osaka University Medical School

Masaru KURU, Yasuo KOYAMA and Hideo OZAKI

National Cancer Center Hospital

The vesico-motor centers of central nervous system of cats have been found in the following areas: cingulum, hypothalamus, midbrain, pons, medulla oblongata and lumbosacral cord. The fiber connections between them were demonstrated by Marchi Stain. This experiment was designed to investigate the interaction of simultaneous stimulation in two different centers of them upon the vesical movement. Simultaneous stimulation always resulted in the stronger vesical contraction than the stimulation of only one center.

When the pontine vesicomotor center (Barrington) was simultaneously