EXPLORATION OF INTRACRANIAL STRUCTURES ENDOSCOPICALLY

Sir:

After reading the article by Tutino entitled Exploration of Intracranial Structures Endoscopically through Minimal Craniotomies (Plast. Reconstr. Surg. 97: 1027, 1996), we were quite astonished and flabbergasted. He claimed the method used was new and innovative (it also was published under the heading Ideas and Innovations). He also claimed that “the success of this study is promising for neurosurgery” and that neurosurgeons will profit from this “new” technique. These statements are presumptuous.

First, we strongly contradict that the described procedure is new. The use of endoscopes in neurosurgery is not by far new. In 1910, L’Espinasse already used an endoscope to remove choroid plexus for the treatment of hydrocephalus. Since then, many attempts have been made to use endoscopes intracranially, but the quality of the scopes and light sources restricted their successful use. Since the 1980s, there has been a resurgence of interest in neuroendoscopy, particularly due to the development of better scopes, cameras, monitors, and light sources. Nowadays, endoscopic techniques are well known and frequently used within neurosurgery. Several textbooks, especially the beautifully illustrated book on intracranial endoscopic anatomy by Pernecky et al., and articles on this subject with illustrations of much better quality than in the article have been published.25

Second, the author used a flexible 3.4-mm endoscope. The only advantage of a fiberscope over a lenscope is its smaller size. In this respect, there are commercially available fiber-
optic neuroendoscopes that are much smaller with the same optical quality as shown in the author's illustrations. However, we would strongly recommend the use of a lenscope (there are neuroendoscopes with a rod lens optic with a diameter of 2.4 mm), which will allow a much clearer view during exploration of the intracranial content. Their rigidity is not a disadvantage if the procedure and the trajectory are carefully planned based on CT and MRJ data.

Third, we would advise using neurosurgical instead of orthopedic instruments to perform a craniotomy. We presume the author does not use gynecologic instruments for breast reconstruction.

Finally, the proposed incisions to gain access to the anterior, middle, and posterior cranial fossae need to be elucidated. The proposed incision for access to the middle fossa is located at the level of the linea temporalis, which is not appropriate to reach basal structures. Furthermore, we can hardly imagine how one can reach the posterior fossa by making a craniotomy in the parietal region.

The incision for access to the anterior fossa, presented in Figure 1, is placed too far medially, which will endanger the supraorbital nerve. We often use an eyebrow incision for basal frontal or frontolateral approaches to skull base lesions and aneurysms. The incision is made laterally from the supraorbital foramen in order to preserve the supraorbital nerve. There also is no need to place the incision superior to the eyebrow. An incision within the eyebrow itself gives excellent cosmetic results.

In conclusion, the article is pretentious and flaunty without being new or innovative. We would like to refer the interested reader to the existing excellent textbooks or articles.

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REFERENCES

A REVIEW ON THE HISTORY OF END-TO-SIDE NEURORRHAPHY

Sir:

We apologize for being late in writing, but we hope that our letter may be of some value. The article entitled End-to-Side Neurorrhaphy with Removal of the Epineural Sheath: An Experimental Study in Rats, by Viterbo et al. (Plast. Reconstr. Surg. 94: 1038, 1994) is very detailed and should be of great interest to all plastic surgeons. This and their other study are both very important with respect to contemporary clinical use of end-to-side nerve coaptation.

The authors mentioned that "the first report was by Bal lance et al. in 1903, for the treatment of facial palsy having sutured the distal end of the sectioned facial nerve laterally to the accessory spinal nerve. 4,5 However, Kennedy proposed the concept of end-to-side neurorrhaphy 2 years earlier than Ballance (Fig. 1). He performed end-to-side nerve coaptation in a patient with facial spasm in 1899 and then published a report in 1901.3 Ballance et al.4 and Harris and Low5 also mentioned very clearly in their articles that "in 1899 Kennedy divided the facial nerve for facial spasm and united it to the spinal accessory (end-to-side junction)." 5* We believe that it is important to clarify this point for current investigators because Vierbo et al. did not mention it.

The purpose of the end-to-side neurorrhaphy technique is to use a donor nerve without sacrificing the supply to its distribution area. Kennedy reported that the facial nerve was divided close to its exit from the sternomastoid foramen, and then the peripheral end of the facial nerve was sutured to the side of the spinal accessory nerve after opening a window (a large gap extending to the other side of the perineurium). This was done in a 46-year-old woman with incessant muscular twitching on the right side of the face for 10 years. Some temporary paralysis in the territory of the donor nerve (the sternomastoid and trapezius muscles) developed after dividing the donor nerve, but it recovered by 49 days postoperatively. Finally, at 23 months postoperatively, the hemifacial spasm was cured. The patient subsequently had remarkably free movement of the face on movement of the shoulder, and there was no deficiency in the territory of the accessory nerve. 3 Although Kennedy sectioned the accessory nerve as

FIG. 1. Robert Kennedy, M.A., D.Sc., M.D. (1865-1924). (From the Library of the Faculty of Medicine at Glasgow University.)