

## 7. Summary

### **Surgical treatment of left laryngeal hemiplegia in horses, using a nerve (N. cervicalis 1) muscle pedicle graft.**

The transplantation of the nervus cervicalis 1 as a surgical method of treating hemiplegia laryngis sinistra was first published by Fulton et al. (1991 and 1992). The surgical method described in this publication is based on the findings in those publications. This technique of transplanting the nervus cervicalis 1 as a donor nerve attempts to restore the function of the musculus cricoarytenoideus dorsalis under stress. In the course of this work preliminary anatomic studies of 32 horses' heads including parts of the neck were made in order to optimize the surgical method. This surgical technique was then performed on 12 patients from the Clinic for Horses, General Surgery and Radiology of the University of Berlin (FU Berlin). The changes to the surgical method to optimize it are summarized and described in this paper.

This surgical method will certainly gain in importance as, at the moment, it is the only method of restoring the physiological functions of hemiplegia laryngis sinistra under stress. The changes to this method as described here are based on an attempt to standardize the operation and establish an alternative to the known therapies of hemiplegia laryngis in horse surgery.