The two volumes deal with the surgical management of pain by procedures on afferent neurons of the central nervous system. Experimental data are presented as well as the techniques and results of different procedures in man. The roles of intrathecal phenol injection, sympathectomy, thermal trigeminal rhizotomy, microsurgical approach to the trigeminal nerve and of selective posterior rhizotomy are the topics treated in the first volume. Sympathectomy (by ganglionectomy or splanchnicotomy) is usually a safe and effective procedure in the treatment of visceral pain and in causalgia. Thermal rhizotomy may give good results not only in trigeminal neuralgia but also in other categories of facial pain. Selective posterior rhizotomy can be successful in about 50% of peripheral and radicular neuralgias of malignant or nonmalignant origin.

The central procedures described in the second volume include open chordotomy, mediodlongitudinal myelotomy, stereotactic mesencephalotomy, intra-laminar thalamotomy, posteromedial hypothalamotomy, pulvinarotomy and small frontal lesions as well as intracranial electrical stimulation. With respect to chordotomy, the percutaneous procedure affords the highest degree of success in pain relief with the lowest possible risk, whereas open chordotomy has only limited indications. Mediodlongitudinal myelotomy gives immediate pain relief in the great majority of patients with pain in the abdomen, pelvis, lower and upper limbs and torso. No leg weakness or sphincter problems are observed in contrast to bilateral chordotomy. Mesencephalotomy is the treatment of choice for intractable pain due to carcinoma in the head and neck region. Thalamotomy and posteromedial hypothalamotomy produce lesions in the end stations of C and slow delta fibres and exert influences of the specific sensory systems to decrease the density of impulses which can be interpreted as pain. Intra-laminar thalamotomy is the treatment of choice for central pain. Pulvinarotomy is another procedure for patients with malignant tumours. For certain patients in terminal states with great anguish and distress, partial leucotomy or cingulotomy may be justified. Central pain and painful anaesthesia must be regarded as the possible and unpredictable complication of neurosurgical procedures for pain. Stimulation procedures via chronic implanted electrodes in the brain have yielded lasting relief of pain. Most experiences deal with specific thalamic nuclei and the posterior limb of the internal capsule.

The two volumes give valuable and up-to-date information about modern neurosurgical procedures to relieve pain. They can be recommended to neurosurgeons, neurologists, oncologists and to all physicians dealing with the problem of intractable pain.

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