Preface

These proceedings from the Xth Congress of the European Society for Stereotactic and Functional Neurosurgery in Stockholm reflect the growing interest in these fields of neurosurgery. It is the most extensive volume in this series of publications and it contains a large number of original articles pertaining to the most recent advances in stereotactic and functional neurosurgery. Not long ago stereotactic neurosurgery was considered an esoteric subspeciality practised only by those involved in treating movement disorders and pain. In the last decade we have witnessed the incorporation of stereotactic methodology in the management of common neurosurgical diseases, and the stereotactic technique is now practised in all major neurosurgical centers. As with other surgical techniques and tools, however, the utilization of stereotactic methods requires special knowledge and training. This book comprises articles which give insight into new stereotactic applications and technology. For example, the usage of stereotaxis without a frame and the so-called navigator systems in open tumor surgery is dealt with in two papers.

The introduction and development of radiosurgery is closely linked to the advancement of stereotactic technique. Radiosurgical treatment of tumors and cerebrovascular diseases has been one of major achievements in modern neurosurgery. This publication contains several original reports illustrating the efficacy of radiosurgery in problematic neurological diseases.

In the field of functional neurosurgery there has been an impressive development in the treatment of pain and many of the new treatment modalities in pain have been introduced and developed by neurosurgeons. Various forms of electric neurostimulation have become a routine in the management of certain pain conditions resistant to conventional therapy. Neuropathic forms of chronic pain are particularly problematic, and the physiological background for such pain has until recently been poorly understood. The pathophysiology of peripheral neuropathic pain is the topic of a thorough review by Clifford Woolf from London. There are also a number of other papers dealing with experimental and clinical studies of neuropathic pain.

Neural transplantation is a novel and fascinating approach to the treatment of parkinsonism. This form of therapy is unique in the sense that it aims at the restoration of diseased nervous tissue with specific neurotransmitter-releasing properties. Transplantation also gives hope as a therapy for other hitherto incurable neurological diseases. The role of trophic factors in neural transplantation is reviewed by Lars Olson, Stockholm, and a clinical update is given by Roy Bakay, Atlanta.

The classical neurosurgical treatment of tremor is thalamotomy which is still widely practised. However, in recent years it has been convincingly shown that the same tremor blocking effect can be achieved by electric stimulation in the thalamus. This new and non-destructive approach for dealing with incapacitating tremor in parkinsonism and other extrapyramidal diseases is reviewed by Alim Benabid, Grenoble.

These proceedings demonstrate that stereotactic and functional neurosurgery represent active fields of both clinical and basic neuroscience. The many original and new reports presented at the meeting in Stockholm in 1992 is a manifestation of the vitality of the European Society for Stereotactic and Functional Neurosurgery.

Björn Meyerson
President ESSFN

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