GREAT AND DESPERATE CURES: THE RISE AND DECLINE OF PSYCHOSURGERY & OTHER RADICAL TREATMENTS FOR MENTAL ILLNESS. By Elliot S. Valenstein. New York, Basic Books, Inc., Publishers, 1986. 338 pp. $19.95.

As a student at the University of Michigan in 1983, I clearly remember Elliot Valenstein lecture to my neuropsychology class on a pet topic of his, the history of psychosurgery. Never one to linger on the routine, Valenstein told us of the competitive and prideful nature of the major proponent of psychosurgery in the U.S., Walter Freeman. As a neuroscientist, Valenstein felt no need to misrepresent the past failings of his science, and spoke instead with a sincerity that struck me as both insightful and near sacristy. In his book Great and Desperate Cures, Valenstein has detailed with the same passion the dramatic rise and subsequent crashing fall in the use of surgical intervention in the treatment of mental illness.

As a model to describe the pressures on the medical system to accept new therapies, Valenstein has chosen to focus his text mainly on the personalities surrounding the development and use of psychosurgery. The professional and personal lives of two men, Walter Freeman and Egaz Moniz, the Portuguese neurophysiologist and co-recipient of the Nobel Prize in Medicine in 1949, are described in extraordinary detail. It was Moniz in 1935 who first proposed destruction of part of the frontal lobes as therapy for psychotic patients. As emphasized by Valenstein, Moniz made this dramatic suggestion with minimal theoretical or experimental justification. In collaboration with willing neurosurgeons, Moniz then went on to perform the first "leukotomies" on a small number of patients, and rapidly declared many of them completely cured. Previously well known for his work on cerebral angiography and an able statesman as well, Moniz was held in great respect by the scientific community. As Valenstein suggests, the remarkable lack of critical evaluation by Moniz's peers may stem from his influential professional stature—a scenario repeated all too often today.

Freeman, a neuropathologist at George Washington University, is credited with almost single-handedly popularizing the widespread use of psychosurgery throughout the U.S. between 1938 and 1950. He himself performed over 3,500 transorbital lobotomies—the "ice pick" lobotomy—which found use in a number of mental hospitals throughout the country. Freeman believed in simplifying the surgery involved, and taught his technique to psychiatrists, thus further increasing the tensions which existed between neurosurgeons and psychiatrists at that time. No less driven than Moniz, Freeman adapted to his role as travelling teacher of simple neurosurgery with a fervor which blinded him to critical evaluation of the technique. As critics began to describe lobotomized patients who were recklessly impulsive, lacking in afeet, and without normal response to common human interactions, Freeman continued to publicize the favorable results of his operations. With the advent of antipsychotic drugs in the 1950s, psychosurgery lost its place in the regimen of therapies for psychiatric disorders, and Freeman soon lost respect as a leader in treatment of mental illness.

Valenstein, however, tells more than the life story of two men. He places the development of psychosurgery within the context of approaches to mental illness in the early twentieth century. This was an exciting period in psychiatry, with new Freudian theories of psychopathology merging with developments in neurobiology and surgery. Somatic treatments for mental illness were rising in use, including malaria-induced fever, convulsive therapies, and insulin shock. In addition, psychotic patients were caught between psychiatrists, neurologists, and neurosurgeons, each struggling for dominance in approaches to treatment of mental illness. Into this fray, the ambitions of
Freeman and Moniz can be seen as personifying the strains on the mental health system as a whole. Whoever could convince both peers and the awakening public of their advantage would win the battle. Indeed, the stage was set for a great and dramatic cure.

Psychosurgery was not, however, viewed at that time as a quack cure, growing out of ignorance or a naive public. As part of standard medical practice, psychosurgery escaped necessary evaluation and criticisms. Valenstein has described this history brilliantly and has presented a cautionary tale for medicine today. Medicine is no less immune to human trapping than any other field; this fine volume attests to that message as well as any other current book.

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NEUROSURGERY: THE SCIENTIFIC BASIS OF CLINICAL PRACTICE. Edited by Alan Crockard, Richard Hayward, and Julian T. Hoff. Boston, MA, Blackwell Scientific Publications, 1985. 647 pp. No price.

This superb text, written by an internationally recognized group of contributors with expertise in a broad number of specialties, was a pleasure to review. In fact, soon after commencing reading one readily agrees with the statement of Professor Charles Drake in the foreword that "little more timely or welcome has emerged for neurosurgeons in recent years." The successful practice of neurosurgery is dependent on a fundamental understanding of the basic neurosciences, and this volume directly addresses this issue by presenting in an organized fashion many of the scientific principles underlying treatment of the central nervous system.

The volume is divided into five major sections, covering the basic neurosciences, functions of the brain, maintenance of such function, response to disease, and investigative techniques and testing. The thirty-nine authors include prominent specialists in neurosurgery, neurology, orthopedics, urology, neuropathology, and anesthesiology, as well as pharmacologists, psychologists, and neurochemists; each has done an admirable job of presenting the subject matter's pertinent details in a concise, well-organized manner. The thirty-seven chapters are very broad in scope; among numerous others, the topics discussed range from central nervous system developmental anomalies, neurotransmitters, and computer-generated stereotactic neuroanatomy to cerebrovascular disease, elevated intracranial pressure, epilepsy, and tumors. Other chapters cover evoked potentials, nerve conduction studies, psychological assessment, diagnostic imaging, and vestibular and audiologic testing. Although the volume is multi-authored, a writing style of consistently high quality is maintained throughout the text, and each chapter includes numerous illustrations and current references. One of the major strengths of the volume is its use of many figures, tables, graphs, and scans to reinforce and amplify the material presented. A comprehensive index concludes the volume.

Throughout the chapters, the authors emphasize the fundamental scientific principles underlying the field of neurosurgery and their clinical application. By coupling a strong focus on those basic neurosciences having clinical relevance with excellent didactic methods, the contributors have successfully produced a highly readable and commendable textbook. This volume is certain to be popular with neurosurgeons,