NEUROSURGICAL FOCUS

Hydrocephalus

Introduction by Topic Editors, Peter W. Carmel, M.D., and James M. Drake, M.D.

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This issue of **Neurosurgical Focus** is devoted to the clinical problems and basic pathophysiology involved in treating hydrocephalus. The large size of this issue reflects the high degree of interest in these areas. We had expected to have between six and eight articles and are gratified that this issue will comprise 13 articles selected from those that were submitted.

The clinical section begins with three articles dealing with the epidemiology of hydrocephalus and use of endoscopy. The second group of papers is composed of illustrative case reports. The third group of articles report on experience with the programmable valve, which has created recent interest. Finally, there are four provocative articles dealing with basic science aspects of hydrocephalus.

The article by Drake and his colleagues calls to our attention the impact of age at shunt insertion, and the time interval to first revision on shunt failure rates. Both early age at initial shunt and early first revision have an adverse impact on the subsequent shunt experience of the child.

The papers by Teo and Sainte-Rose detail experience with the use of endoscopic ventriculostomy in the diagnosis and management of pineal region and posterior fossa tumors. This methodology is becoming increasingly important in handling tumors in this region. The case report by Piatt raises a significant warning in the diagnosis of child abuse. The interesting cases reported by Watanabe and Mascalchi highlight the increasing complexity of the diagnosis of hydrocephalus as well as the new armamentarium of treatment methods.

The paper by Carmel, et al., outlines the use of a programmable valve in patients with subdural hematoma or hygroma, and the paper by Chang discusses the utility of this device in lumboperitoneal shunt placement. Romner and his coworkers report on the largest group to date of patients treated with programmable valves.

The report by Chang and coworkers on the possibility of using the response of acetazolamide on cerebral blood flow to help in the diagnosis of idiopathic normal-pressure hydrocephalus is quite provocative. It highlights the difficulty in trying to select those demented patients who may benefit from shunt placement.

Cohen, et al., have helped to characterize a model of hydrocephalus in transgenic mice. The papers by

Del Bigio and McAllister point out results in experimental rat hydrocephalus that may well find their way into neurosurgical practice as part of a diagnostic workup.

We thank our colleagues Drs. Douglas Cochrane, John Kestle, James T. Goodrich, and Guiseppe Tenti, who were generous in reviewing these and other contributions; their comments were extremely helpful in editing this issue.

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We hope that you find this issue of **Neurosurgical Focus** as exciting and as informative as we did.

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