Introduction

Leksell Gamma Knife Conference in the land down under

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"I forget what I was taught. I only remember what I have learnt."

PATRICK VICTOR MARTINDALE WHITE (1912–1990),
AUSTRALIAN AUTHOR AND NOBEL LAUREATE

The 16th International Leksell Gamma Knife Society Meeting was held March 25th through 29th, 2012, in Sydney, Australia (Fig. 1). Having spent a year of my neurosurgical training in New Zealand, it was a pleasure to return to that part of the world. Lars Leksell's reach is indeed far, as the Gamma Knife has come to occupy an important part of care provided to patients in the "land down under."

Patrick White, an Australian author and recipient of the Nobel Prize for literature in 1973, was known for his varied narrative approaches and stream-of-consciousness technique. At times, the scientific sessions shifted focus as seamlessly as White changed narrative mode. The focus of the meeting shifted through topics such as basic science, clinical outcomes, trial design, and preparation and writing of scientific papers.

The field of Gamma Knife surgery (GKS) continues to evolve. This evolution was evident during the scientific proceedings and has been noted in numerous articles within the past year in the *Journal of Neurosurgery* and other high-impact journals. Nowhere is this evolution more apparent than in the realm of GKS for patients with brain metastasis. Stereotactic radiosurgery is increasingly being used for patients harboring more than 5 brain metastases, provided that the patient demonstrates a high neurological performance status and well-controlled systemic disease. Indications for GKS in the setting of brain metastasis will certainly continue to expand.

The Leksell Gamma Knife Society has spawned the formation of cooperative research groups. The North American Gamma Knife Consortium and the Japanese Gamma Knife Society, for example, have conducted mul-

FIG. 1. Photograph of the Sydney Opera House.

ticenter clinical trials designed to answer challenging and important questions not easily addressed by any single center. Research from such groups was presented at the meeting and underscored the increasingly sophisticated science behind GKS. Clinical trials conducted by cooperative research groups have come to play an increasingly critical role in advancing the field of GKS.

The meeting also included two topics related to GKS that will profoundly affect the field in the future—economics and education. Satisfactory initial radiosurgical training for neurosurgeons and radiation oncologists during residency must be ensured, but it is also paramount that learning be a lifelong process so that practitioners can maintain continued proficiency and competency in a quickly evolving field. In addition, the cost effectiveness of radiosurgery, compared to alternative treatment approaches such as microsurgery, was the subject of another special seminar. With health care reform shaping the United States and many other countries, the cost effectiveness of the Gamma Knife will undoubtedly shape its role in the contemporary management of intracranial disorders.

The articles that follow represent some of the more notable works presented at the Leksell Gamma Knife Society meeting. The articles in this *Journal of Neurosurgery* supplement will help us all remember what was learned at that meeting as well as point toward areas for future research, leading to a brighter and broader future for the Gamma Knife.

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Disclosure

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