INTRODUCTION

Building a bridge to the future of intracranial stereotactic radiosurgery

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In May 2016, the Leksell Gamma Knife Society (LGKS) held its 18th international meeting. The meeting was located in Amsterdam, and its theme was “Building Bridges.” After all, it was in 1170 and 1173 that locals in the region constructed a bridge and a dam across the Amstel River following flooding (Fig. 1). Hence, the name “Aemsteldamme” (Amsterdam) became a fixture for the community that arose there. Drs. Patrick Hanssens and Guus Beute served as the meeting co-chairs. The scientific program included diverse topics such as benign and malignant tumors, vascular disorders, functional disorders, ophthalmological indications, radiobiology, neuroimaging, and medical physics. Thus, the program afforded at least some element of scientific discourse relevant to all.

In many ways, the Gamma Knife itself has served as a tool for building bridges across diverse medical disciplines. Certainly, we see collaborative partnerships among neurological surgeons, radiation oncologists, ophthalmologists, and others who use the Gamma Knife. Such collaborations have largely led to enhanced quality of care for patients with complex neurological disorders. Since its inception, the Gamma Knife has been used to manage more than 1 million patients.

One area of particular interest at the meeting was the advent of the Gamma Knife Icon. This platform couples the Gamma Knife Perfexion unit with on-board cone-beam CT and infrared tracking. The ability to perform fractionated treatments is made substantially easier with the Gamma Knife than with the Extend system. As much as possible, the workflow and technology upgrades remain true to Leksell’s principle of simplicity. The precise indications and outcomes associated with Gamma Knife fractionation will be defined by LGKS members in the years to come. The new and improved Gamma Knife may facilitate the building of new bridges or the reinforcement of existing ones.

Othmar Ammann, a Swiss-American structural engineer, is considered one of the most prominent bridge builders and made substantial advances in suspension bridge design. He helped to build the George Washington Bridge, the Bayonne Bridge, the Triborough Bridge, the Bronx-Whitestone Bridge, the Walt Whitman Bridge, the Throgs Neck Bridge, and the Verrazano-Narrows Bridge. He also assisted in the building of the Golden Gate Bridge. While his designs shape nearly all contemporary bridges, he might have been envious of the ties bridged across medical specialties and individual lives by Leksell’s Gamma Knife. He would also no doubt have appreciated the harmony of simplicity and elegance achieved by the Gamma Knife.

The next stop for the Leksell Gamma Knife Society is Dubai.

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Disclosures

The author reports no conflict of interest.