Dural Arteriovenous Fistulas Study Proposal to the
International Gamma Knife Radiosurgery Foundation

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Selected dural arteriovenous fistulas (dAVF) are treated with Gamma Knife radiosurgery (GKRS). However, to date, the radiosurgical series on the subject of dAVF are largely small, retrospective single center studies. As such, they are limited in terms of their statistical power and subject to inherent selection biases of the single center from which the patients were derived. Also with regard to dAVF, the role of GKRS in comparison to neuro-interventional treatment or microsurgical resection remains poorly defined.

The proposed retrospective, multicenter study through the IGKRF involves patients receiving Gamma Knife Radiosurgery for intracranial dural arteriovenous fistulas (dAVF). The study is intended to assess patient and dAVF characteristics that are predictive of obliteration and clinical outcomes. It should also better define the role of GKRS in the management of dAVF patients. In addition, we will attempt to validate commonly used surgical grading scales (Borden & Cognard) in predicting outcome following GKRS. Potentially we could develop a novel grading scale that may be more relevant in predicting outcome following GKRS of intracranial dAVF.

A minimum of 6 months clinical and radiologic follow up would be required. Patients with prior treatments should also be included to help assess the role of multimodality therapies in the patients.