

Available online at www.sciencedirect.com

SciVerse ScienceDirect

journal homepage: http://www.elsevier.com/locate/rpor



Refresher course: Radiosurgery/Intracranial FSRT

History and general indications of radiosurgery Radiosurgery for acoustic neuromas, arterio-venous malformations and functional disorders



Roberto Spiegelmann

Department of Neurosurgery, Chaim Sheba Medical Center, Tel Hashomer, Israel

Time will prevent going into detail on each of these topics. Consequently, I will go with a holistic take on these items.

The history of radiosurgery and its current state of affairs will be seen through the light of the technological breakthroughs that enabled its development.

Its general indications will be addressed as a reflection of radiosurgery's potentials and limitations.

Radiosurgery for acoustic neuromas, AVMs and functional disorders represent the whole spectrum of radiosurgery: from tumor control, through vascular occlusion to normal neural

tissue functional modulation/disruption. The praxis of radiosurgery in these applications will be navigated with particular reference to:

Imaging: different requirements, issues related to accuracy of target determination, image fusion.

Dose requirements.

Irradiation paradigms: optimization of isodose distribution, dynamic rotation, iMRT, cylindrical collimators, and hypofractionation.