

Supplement. Shared decision making (SDM) process for patients.

Based on previous studies, there are two options which we could offer to manage your optic nerve sheath meningioma (ONSM). We could treat your mass with either traditional external beam radiation therapy (EBRT, 25 treatment fractions), 5 days per week over 5 weeks, or multisession gamma knife radiosurgery (GKRS, usually 4 sessions), which requires admission for 4 days.

EBRT

GKRS

What are the similar points between both treatment options?

Either option you choose:

- The treatment cost is covered by the National Health Insurance System.
- The tumor size control rates are similar (about 90%).
- Vision prognosis are still guarded and need long-term follow-up.
- Radiation-related ocular complications may develop: ocular surface problems (dry eye disease, corneal keratopathy and conjunctivitis, cataract, retinopathy, or neuropathy).

What are the different points between both treatment

- Take five weeks to complete, and required hospital visit per treatment.
- Regarded as a standard of treatment and its treatment efficacy was well established.
- Radiation-related ocular complications can be mitigated by adequate radiation dose control.

- Four-day admission is necessary.
- Previously utilized in treating intracranial tumor, regarded as a novel method for orbital and optic nerve lesion
- Deliver high dose radiation to an intended target, steep fall-off dose gradients to minimize collateral tissue damage.
- Radiation-related ocular complications can be avoided by delicate treatment planning.

What is the uncertainty about two treatment options?

- Although both treatments are proved effective in tumor control and vision preservation, we don't know if the effects are the same.
- We don't know if the radiation-induced complication rates are the same.

- You can ask any question. We have a very intimated connected orbital tumor team. Radiation Oncologists or Neurosurgeons can be consulted if you need any help.
 - If you have made up your mind, which option do you prefer?
- Once treatment is initiated, it is difficult to switch treatment modalities.
- How do you feel about being involved in the decision-making process?