Cavernous venous malformation (CVM) is the most common vascular lesion of the orbit in adults. The management of CVM of the orbital apex can be complex due to the lesion sharing a tight space with critical nervous and vascular structures. Surgical approaches carry a significant risk of diplopia, ptosis, and profound vision loss. However, an attractive alternative is using fractionated stereotactic radiotherapy (FSRT).

The objective of the study is to assess the efficacy and toxicity of FSRT in treating CVM of the orbital apex.

### Follow Up

Patients were followed up after completion of FSRT for at least 12 monthly by a radiation oncologist and an ophthalmologist who completed visual function testing. MRI imaging with gadolinium contrast was completed on all patients at pre-treatment and within 6-24 months post-treatment. Tumour volume was calculated using the ABC/2 method.

### RESULTS

We found that FSRT is a safe and effective treatment for CVM of the orbital apex with an average 64% volume reduction at 12 months and improvement in visual function, proptosis and pain. There were no complications from the treatment in our limited cohort. FSRT is a safe and effective treatment modality to consider in CVM of the orbital apex.