

## Pineal Tumour Surgery: Maintaining A Balance In The Face Of Controversies

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**Background:** Pineal tumours are rare and their complex management may be potentially more complicated by existing controversies. Although strict guidelines can be detrimental in managing individual cases, nevertheless reasonable recommendations can assist in decision-making regarding surgical treatment, the choice of the operative approach and achieving the balance between aggressive surgical resection and the resulting morbidity.

**Recommendations:** Based on experience with 34 microsurgical resections of pineal gland tumours specifically from over 60 pineal region lesions operated upon excluding open biopsies in adult and paediatric patients at Addenbrooke's Cambridge University Hospital. Tumour markers may obviate the need of biopsy to obtain the diagnosis in some cases. Workup and radiological follow up is advocated on an individual basis for incidental lesions. Management and follow up of pineal cysts is controversial but good long-term results may be achieved by endoscopic fenestration and third ventriculostomy (ETV). ETV rather than shunting is the preferred method for CSF diversion. The selection of the approach between supracerebellar infratentorial and occipital transtentorial depends on predicting the "blind spots" based on the craniocaudal and third ventricular extensions of the lesion. Papillary Tumours of the Pineal Region (PTPR) may require more aggressive surgical resection to achieve long term tumour control. Ophthalmological morbidity related to adherent tumours to the tectum are complex to manage, carries long term affection of quality of life and are related to pre-existing visual affection and size of the lesion. Prolonged follow up is recommended following surgery.

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