# Pituitary metastases surgery

Surgical treatment of PM should be specifically decided based on patient performance status, tumor staging, and patient preference [1].

The transsphenoidal approach is a safe method to resect pituitary metastases and that the extend of resection does not have an influence on survival time [2].

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Complete surgical resection of PMs is usually impossible because these metastases are often diffuse and invasive, but surgery is still indicated when suprasellar extension of a metastases results in chiasmal damage and visual deterioration, or when the histological assessment of the sellar tumor is required for the precise diagnosis of primary cancer and decision on the preferred treatment. Surgery by the trans-sphenoidal route can improve visual-field defects, headache, and ophthalmoplegia in the majority of affected cases. Stereotactic sellar radiosurgery is also an effective, non-invasive, and safe method of ameliorating the compressive symptoms of PMs in patients with widespread metastases and expected short survival [3]. Definitive tissue diagnosis by surgery may prevent unnecessary radiotherapy to the sellae or the need for other systemic treatments when benign pituitary disease is confirmed histologically [4]. Surgery with/or sellar radiation can improve local symptoms but are not expected to increase the survival rate, thus the treatment aim is mostly palliative.

The anterior pituitary function should be carefully studied and hormonal replacement initiated as required. Diabetes insipidus treated with desmopressin (administered nasally or orally) can improve the quality of life and prevent sodium/water imbalance. Systemic targeted medical treatment is usually not efficient when diffuse metastatic spread together with PM is apparent. However, patients with pituitary involvement by melanoma, lymphoma, or leukemia may potentially benefit from chemotherapy or immunotherapy if diagnosed and treated appropriately [5] [6].

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