

# Pituitary metastases diagnosis

With advanced diagnostic imaging techniques and increased awareness about the manifestation of sellar lesions, the incidence of cranial nerve palsies and anterior pituitaries are higher than reported<sup>1)</sup>.

Unless a systemic metastatic disease is already apparent, are often preoperatively misdiagnosed as [pituitary neuroendocrine tumors](#).

[Pituitary metastases](#) (PM) can be the initial presentation of an otherwise unknown malignancy. As PM has no clinical or radiological pathognomonic features, diagnosis is challenging.

## Radiographic features

Although larger lesions are visible on CT, appearing as enhancing soft tissue masses, MRI is the modality of choice for assessment of the pituitary region.

### MRI

Although all metastases to the pituitary (as is the case everywhere) start as microscopic deposits, they are usually encountered in two patterns:

a mass arising from the pituitary fossa (similar to a macroadenoma)

infundibular lesion

Small intrasellar masses are generally not identified, mainly because they are presumably asymptomatic and require targeted sequences that are not performed without indication.

Sizeable mass

These masses typically involve both the intra and suprasellar compartments. As they are usually rapidly growing they have some features that are helpful in distinguishing them from pituitary macroadenomas:

relatively normal size fossa (growth in a short period)

bony destruction rather than remodelling

dural thickening

dumb-bell shape as the diaphragma sellae has not had time to be stretched

irregular edges

Infundibular lesion

Involvement of the infundibulum typically appears as nodular or irregular thickening and enhancement. The posterior pituitary bright spot may also be absent, either from interruption of the

regular transport of neurosecretory granules down the infundibulum or due to concurrent infiltration of the posterior lobe.

<sup>1)</sup>

He W, Chen F, Dalm B, Kirby PA, Greenlee JD. Metastatic involvement of the pituitary gland: a systematic review with pooled individual patient data analysis. Pituitary. 2015 Feb;18(1):159-68. doi: 10.1007/s11102-014-0552-2. PMID: 24445565.

From:

<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:

[https://neurosurgerywiki.com/wiki/doku.php?id=pituitary\\_metastases\\_diagnosis](https://neurosurgerywiki.com/wiki/doku.php?id=pituitary_metastases_diagnosis)

Last update: **2024/06/07 02:52**

