



PITUITARY FOSSA MASS

- There are a number of causes for a pituitary fossa mass including: [13](#)
 - Pituitary adenoma
 - Meningioma
 - Metastasis
 - Germ Cell Tumour
 - Sarcoidosis
 - Tuberculosis
 - Pituitary Abscess
 - Aneurysm
- A pituitary fossa mass can present clinically in a number of ways including: [14](#)
 - Deficiency of one of more pituitary hormones
 - Hormone excess - most commonly prolactin
 - Mass effects from an expanding lesion eg bitemporal hemianopia
- Pituitary adenomas are the most common cause of a pituitary fossa mass. They may secrete prolactin, TSH, GH, ACTH or gonadotropins. [1-3](#)
- Plain radiography is insensitive and nonspecific for evaluation of sellar pathology, however an enlarged or eroded sella may reflect a pituitary or parasellar lesion. [1-3](#)
- Pituitary microadenoma and even small pituitary macroadenomas are frequently associated with a normal sella size. [1-3](#)



MAGNETIC RESONANCE IMAGING

- Gadolinium enhanced MRI is the imaging modality of choice for investigation of suspected pituitary fossa lesion. [1-4](#)
- Subtle microadenomas can be difficult to detect and a dynamic contrast enhanced study is often used to assist diagnosis. [15,16](#)
- Superior diagnostic accuracy compared to CT. [4-9](#)
- Advantages:
 - Accurate depiction of the anatomy of the pituitary gland, infundibulum, optic chiasm, cavernous sinuses and neighbouring vascular structures. [4,5,7,10](#)
 - Helps differentiate fat, haemorrhage and cystic areas from tumour tissue. [11](#)
- Disadvantages: expensive and limited availability.
- MRI shows an incidental pituitary fossa lesion in approximately 10% of normal individuals. [17](#)
- The majority of these are microadenomas with macroadenomas being far less common. [18](#)
- There is considerable variation in clinical practice in relation to incidental pituitary lesions and the optimal management strategy is uncertain. [19](#)
- Serial imaging has shown that most incidental pituitary adenomas do not increase in size. [20,21](#)

COMPUTED TOMOGRAPHY

- Coronal CT with intravenous contrast and thin slices is the preferred imaging modality if MRI is unavailable or contraindicated and can produce diagnostic images. [15](#)
- Superior to MRI in demonstration of bony erosion. [5,8](#)
- Inferior to MRI for distinguishing the tumour from the optic chiasm and in diagnosis of cavernous sinus invasion. [4,8,12](#)
- Advantages: relatively less expensive and widely available.
- Disadvantages: exposure to ionising radiation.

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Website

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