

Follow-up, surgery and proton beam therapy for a pituitary sella chondrosarcoma

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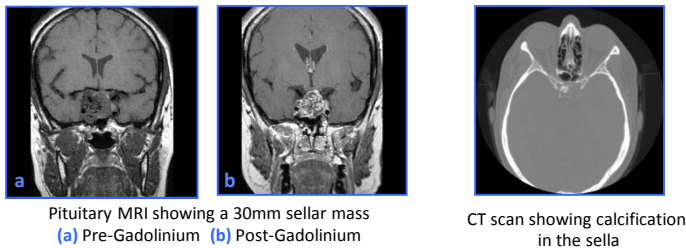
Introduction

We report a case of sellar chondrosarcoma presenting as a non-functioning pituitary tumour

Case History

- 40 year old female referred with nine months history of secondary amenorrhoea and galactorrhoea
- She was otherwise well with no other medical history
- Not on regular medications
- At presentation, examination was normal
- Prolactin 2000mU/L (NR 86-324)
- Normal FBC, U&E, LH, FSH, TSH, FT4, IGF-1 and short Synacthen test

Imaging



Pituitary MRI showing a 30mm sellar mass (a) Pre-Gadolinium (b) Post-Gadolinium

CT scan showing calcification in the sella

Case Progress

- Presumed Craniopharyngioma in view of calcification
- Surgery was recommended but the patient declined
- Opted for a period of radiological surveillance
- Commenced on Cabergoline; achieved normal prolactin and regular periods and galactorrhoea resolved

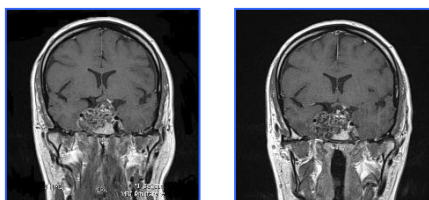
Follow-up Imaging



Initial MRI

1 year later

2 years later

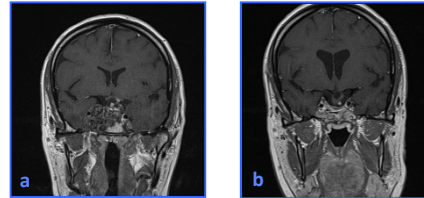


3 years later

4 years later

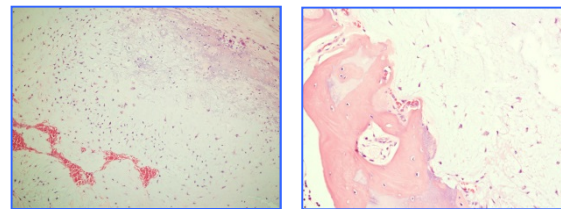
Serial MRI scanning showing slow increase in the size of the sellar mass whilst she remained reluctant to have surgery. The patient gradually developed right 6th and left 4th cranial nerve palsies. 4 years later she agreed to undergo surgery

Further Management



Pituitary MRI (a) Pre- and (b) post-endoscopic transsphenoidal debulking with complete resection of the suprasellar component. There is residual tissue in the right cavernous sinus. Pituitary function remains intact

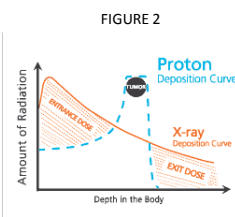
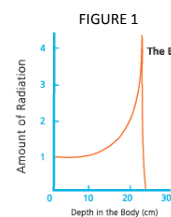
Histopathology



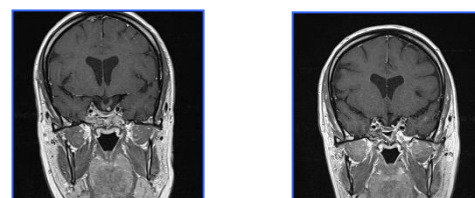
Histology showing WHO Grade 2 Chondrosarcoma

Proton Beam Therapy

- Referred for Proton Beam therapy in Florida, USA, which was well tolerated



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Post-operative MRI

6 months Post-proton therapy

Discussion

- Pituitary chondrosarcomas are rare tumours of cartilage-forming cells arising from the sella, usually presenting as a non-functioning sellar mass
- The most important predictor of good long-term outcome is the extent of resection of the initial tumour
- However, the anatomical location of these tumours may render complete resection extremely difficult and hazardous to achieve, and proton beam therapy is recommended for any residual
- This case demonstrates that these tumours are slow growing
- The case also illustrates the importance of histological diagnosis for proton therapy to be offered which is recommended for any residual as it allows safer delivery of significantly higher radiation doses