

Primary Orbital Adenocarcinoma with Widespread Systemic Metastases: A Case Report.

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Introduction

Primary adenocarcinoma of the orbit is an exceptionally rare malignancy with a propensity for local recurrence. Diagnosis requires careful exclusion of metastatic disease and of periocular cutaneous origin. We present a poorly differentiated primary orbital adenocarcinoma in a young adult with rapid regional and systemic metastatic progression. Only two cases of primary orbital adenocarcinoma, one with some features of mucoepidermoid carcinoma of the orbit and second case mucinous adenocarcinoma of the orbit has been reported in the literature.

Case presentation

A 27-year-old man presented with a 6-month history of progressive right visual blurring, ptosis, and restricted ocular movements, associated with an enlarging medial orbital mass. MRI demonstrated a localized medial orbital lesion without initial globe or intracranial involvement. Histopathology confirmed a poorly differentiated adenocarcinoma with perineural and lymphovascular invasion and involved deep/superior margins. Following orbital exenteration and adjuvant radiotherapy, there was no evidence of local or intracranial recurrence. Despite local control, the patient subsequently developed cervical and parotid nodal metastases, followed by hepatic, bilateral renal/adrenal and suspected osseous metastases, demonstrating rapid systemic progression.

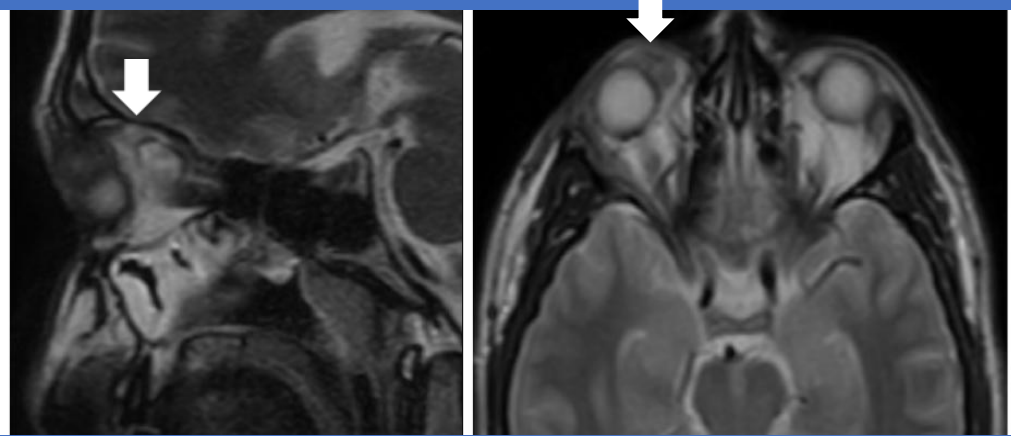
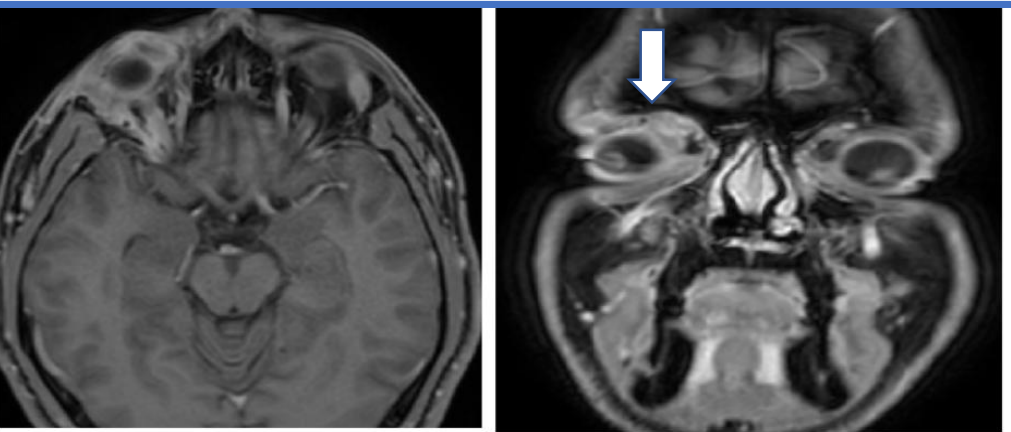


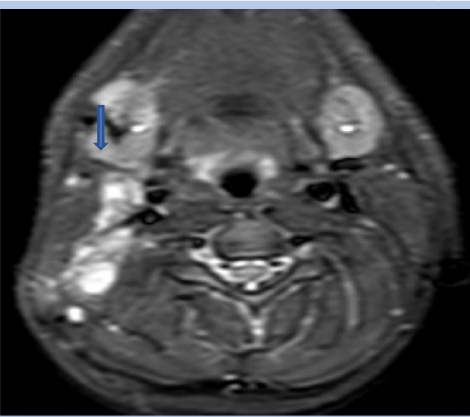
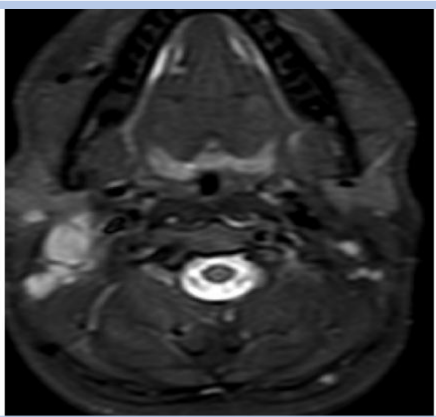
Figure shows heterogenous signal mass is seen near medial canthus of the right eye



Contrast enhanced T1 weighted images show heterogeneously enhancing lesion along the medial canthus of the right orbit extending into preorbital soft tissues.

DISCUSSION and Key points

- Primary orbital adenocarcinoma is exceptionally rare and requires exclusion of a systemic primary.
- MRI is valuable for assessing local tumour extent and surgical involvement.
- Histopathology and immunohistochemistry are central to establishing the diagnosis. Poor differentiation, lymphovascular invasion, perineural invasion and positive margins indicate aggressive disease.
- Absence of local recurrence does not exclude early regional or distant metastatic progression.
- Multidisciplinary management and close imaging surveillance are essential.



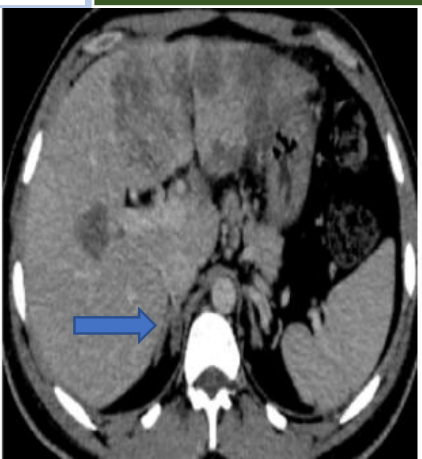
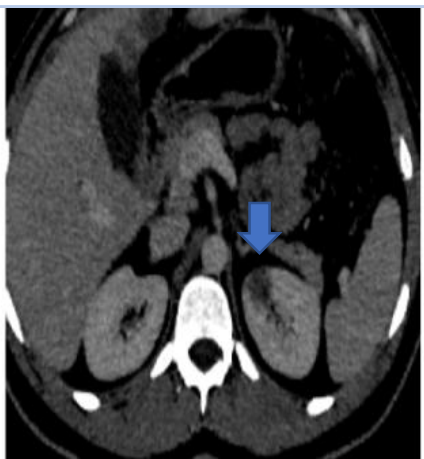
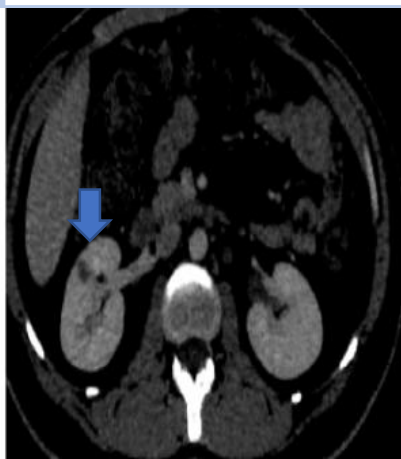
T2 weight MRI showing enlarged right cervical lymph Nodes.



CT scan showing progressive disease left lung apical nodule and hepatic metastases

Conclusion

Primary orbital adenocarcinoma is an exceptionally rare malignancy, and its diagnosis requires the careful exclusion of more common primaries.



Ct scan showing bilateral renal and adrenal metastases

Despite radical surgery and adjuvant radiotherapy, this case showed rapid metastases, emphasizing early management and close postoperative surveillance. Continued reporting of such rare cases is essential to better understand their behaviour and guide management.