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BRAF MUTATIONS IN LOW-GRADE GLIOMAS; A CASE REPORT

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BRAF mutations play an important role in the classification and prognostication of low-grade gliomas and may offer a therapeutic target. We report a case of a *V600E* mutant low-grade glioma with morphological features of a ganglioglioma diagnosed in a 22-year-old female. Sections demonstrated a low-grade lesion with atypical astrocytic glial and neuronal elements, the latter stained positive for chromogranin A and *BRAF V600E* immunohistochemical stains; IDH-1 immunohistochemistry was negative. A provisional diagnosis of ganglioglioma (WHO grade I) was made with a differential diagnosis of pilocytic astrocytoma with gangliocytic differentiation. Subsequent molecular analysis confirmed the tumour to be *IDH* wild-type and contain a *BRAF V600E* point mutation, with absence of *KIAA1549-BRAF* fusion, supporting the initial diagnosis of a ganglioglioma. *BRAF V600E* point mutations are well recognised as a major genetic alteration in low grade paediatric glial tumours and confer prognostic information. Additionally, there is emerging evidence that *BRAF* and *MEK* inhibitors may have a therapeutic role in *BRAF* mutant gliomas.

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SMARCA4-DEFICIENT NON-SMALL CELL LUNG CANCER

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Background: SMARCA4-deficient malignancies are high grade, poorly differentiated tumours with aggressive behaviour and poor prognosis.¹

Case report: We report the case of a 41-year-old male with SMARCA4 deficient metastatic non-small cell lung cancer (NSCLC) diagnosed on brain resection. We reviewed the imaging, clinical records, and histopathology available on the electronic medical record. The patient presented with a right sided hemi-anaesthesia. On brain imaging, a 30 mm mass in the left thalamus and peduncle was found and the patient proceeded to resection.

Histopathology: The histopathology showed a metastatic poorly differentiated carcinoma. Despite extensive intrathoracic lymph node involvement on staging imaging, no definitive lung primary was identified. Initial immunohistochemistry (IHC) for tumour characterisation revealed a profile compatible with a lung

primary, favour NSCLC. Further IHC to delineate mutation status revealed a SMARCA4 deficiency.

Outcome: Despite extensive treatment the patient progressed rapidly and died in a palliative care unit, 7 months post diagnosis.

Discussion: Current evidence suggests that the great majority of SMARCA4-deficient malignancies arising in the thorax represent smoking related undifferentiated/de-differentiated carcinomas rather than primary thoracic sarcomas.² Patients with SMARCA4 deficiency have worse survival rates regardless of stage of disease, thus, awareness of this entity is becoming increasingly important.¹

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SEVERE TERMINAL ILEITIS FOLLOWING SARS-COV-2 INFECTION: A HISTOPATHOLOGICAL CASE REPORT

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In children COVID 19 usually produces mild respiratory symptoms. However, in a rare subset of paediatric patients a severe post-infectious hyperinflammatory syndrome may arise, termed multisystem inflammatory syndrome in children (MIS-C). Gastrointestinal manifestations are particularly common and may mimic other gastrointestinal infections or inflammatory bowel disease.¹ There is a paucity of literature describing the histological features of intestinal inflammation in MIS-C.² We report the case of a 15-year-old male who presented with right iliac fossa pain and raised serum inflammatory markers in the context of recent acute encephalopathy following SARS-CoV-2 infection. The patient underwent ileocolic resection. Histological analysis demonstrated chronic active enteritis with granulomatous inflammation, stricture formation, fissures and ileal perforation. Long term studies are needed to understand the risk of future bowel disease in patients with gastrointestinal manifestations of MIS-C.

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MASSIVE RETINAL GLIOSIS MIMICKING AN INTRAOCULAR NEOPLASM

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