within collagenous stroma. The spindle cells have uniform tapered nuclei and ill defined cytoplasm. Only one mitotic figure was identified. No lymphovascular or perineural invasion was seen.

Immunohistochemistry expressed markers of smooth muscle actin (SMA) and S-100. Inhibin showed weak positive staining. The tumour cells were negative for CD99, CD34, desmin and broad spectrum cytokeratin.

The histopathology and immunohistochemistry was consistent with a myoid gonadal stromal tumour and this is distinctly different from other sex cord-stromal tumours.

Reference

1. Chia-Sui K, Ulbright TM. Myoid gonadal stromal tumour. A clinico-pathologic study of three cases of a distinctive testicular tumour. *Am J Clin Pathol* 2014; 142: 675–82.

'FIJI BELLY' CULMINATING IN COLECTOMY: A CASE REPORT FROM NEW ZEALAND WITH BRIEF REVIEW OF LITERATURE

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Traveller's diarrhoea due to *Entamoeba histolytica* is a world-wide problem due to growing popularity of international travel to exotic locations. Acute fulminant or necrotising amoebic colitis is a rare but potentially fatal complication of intestinal amoebiasis, reported in only less than 0.5% of cases. Misdiagnosis as inflammatory bowel disease can result in inappropriate steroid therapy which can worsen the amoebiasis.

We report the case of a 55-year-old male who became unwell after travelling to a rural area in Fiji. He was initially treated as diverticulitis and subsequently had appendectomy due to suspected appendicitis. Symptoms persisted and subsequent colonic biopsies revealed features of acute colitis and revealed no microorganisms. The patient was treated for inflammatory bowel disease with Pentasa and prednisone, but continued to deteriorate. Fulminant colitis was suspected based on imaging findings and a subtotal colectomy was performed. Histopathological examination revealed flask shaped ulceration and areas of necrosis containing abundant microorganisms morphologically consistent with *Entamoeba*. The patient recovered well after anti-amoebic medication.

A high index of suspicion is essential for early diagnosis of amoebic colitis to prevent misdiagnosis, inappropriate steroid treatment and prevent complications such as acute necrotising colitis.

CHARACTERISING THE IMMUNE RESPONSE IN BRAF V600E AND BRAF WILD TYPE MELANOMA

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Background: BRAF V600E mutation may confer immune evasion through upregulating immunoregulatory cytokines and

decreasing expression of melanoma differentiation antigens, thus being a target in cancer immunotherapy.¹

Aim: To analyse the lymphocytic immune response in BRAF V600E and BRAF wild type (WT) primary melanoma.

Methods: Cases were selected through the Victorian Melanoma Service and the Molecular Laboratory Database, Alfred Health. BRAF V600E ($n=11$) and BRAF WT ($n=11$) primary cutaneous melanoma were matched according to subtype and Breslow thickness. Density and distribution of infiltrating lymphocytes were analysed following immunoperoxidase studies using CD3, CD4, CD8 and CD20 antibodies performed on serial sections, quantified by Image J analysis, and analysed using a one-way ANOVA with Tukey's multiple comparisons test.

Results: CD8+ T cells were the predominant infiltrating cell type [mean density and 95% CI (cells/mm²) WT: 325 (200–450) vs V600E: 480 (317–643)], while infiltration with CD4+ T cells and CD20+ B cells were less prominent as compared to CD8+ T cells ($p<0.01$). The mean difference of cell density was not significantly different between matched BRAF V600E and WT melanomas.

Conclusion: There was no significant difference in the cell type, density or distribution of the immune infiltrate between matched BRAF V600E and WT melanomas.

Reference

1. Ilieva KM, Correa I, Josephs DH, *et al.* Effects of BRAF mutations and BRAF inhibition on immune responses to melanoma. *Mol Cancer Ther* 2014; 13: 2769–83.

ORBITAL IgG4 RELATED DISEASE IN A PATIENT WITH IRKA VARIANT GENE: A CASE REPORT

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To our knowledge there are less than 30 reported cases of IgG4 related disease (IgG4RD) in the paediatric population.¹

We report a case of orbital IgG4-RD in a 14 month male infant with IRKA variant gene. He underwent an incisional biopsy for exophthalmos with a clinical suspicion of rhabdomyosarcoma. Prior to this admission the patient had multiple episodes of infection with possible immunodeficiency. Frozen sections demonstrated fibroinflammatory tissue with no evidence of malignancy. Paraffin sections revealed fragments of a mass with extensive fibrosis and a focally dense lymphoplasmacytic infiltrate with obliterative phlebitis, and increased absolute and relative numbers of IgG4+ plasma cells, in keeping with IgG4-RD. Immunosuppressive treatment was initiated but his clinical course was complicated by multiple infections including Pseudomonas meningoenzephalitis, Candidaemia and CMV viraemia (PCR positive), and by intestinal pseudo-obstruction likely IgG4 related. In view of multiple infections and early presentation with an immune mediated disease, immunodeficiency gene panels were performed. An IRKA variant gene was detected, which was consistent with patient's phenotype.

According to current literature, there is not a specific association between IgG4-RD and immunodeficiency. This case demonstrates IgG4-RD at an earlier age than usual can be an unusual presentation of an immune dysregulatory/immunodeficiency disease.²