example of Langerhans cell sarcoma transdifferentiating from a follicular lymphoma and will discuss the limited literature in this rare entity. The role of BRAF V600E mutation in prognosis and treatment will also be discussed.

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IS IT MYCOPHENOLATE INDUCED COLITIS OR FLARE-UP OF CROHN'S DISEASE? A DIAGNOSTIC DILEMMA FOR HISTOPATHOLOGISTS

Wei Ling Yeoh, Ruchira Fernando

Anatomical Pathology Department, Launceston General Hospital, Tas, Australia

Mycophenolic acid (MPA) is an immunosuppressive drug commonly used in patients with solid organ transplant. It inhibits the *de novo* pathway of purine synthesis that is crucial in cellular rejection of grafts. The same pathway is utilised by enterocytes for regeneration. MPA is a well-known cause of gastrointestinal mucosal injury which can take many forms and closely mimics other gastrointestinal diseases histologically including inflammatory bowel diseases, opportunistic infections and graft-versus-host disease. This case study reports a patient with a background history of Crohn's disease and lung transplant who is on mycophenolate therapy, presenting with diarrhoea and abdominal pain. Endoscopy revealed large confluent ulcers and severe pancolitis. Infective aetiologies including opportunistic infections have been carefully excluded. Histologically, the colonic biopsies demonstrate patchy active chronic colitis with ulceration and focal cryptitis. Mild crypt architectural distortion and focal crypt atrophy are seen. Eosinophils are inconspicuous. All of the above features can be observed in both mycophenolate-induced colitis and Crohn's colitis. This case report highlights the diagnostic dilemmas of histopathologists in this situation, followed by a review of latest literature and discussion on a meaningful differentiation of the two entities.

CASE REPORT: PRIMARY BASAL CELL CARCINOMA OF THE PROSTATE – HISTOPATHOLOGICAL AND BIOLOGICAL FEATURES AND RECENT NEW FINDINGS IN ITS MOLECULAR PATHOLOGY

Wei Wei Yong, Frances Lee, Bassam Tawfik

Australian Clinical Labs, Geelong, Australia

Primary prostatic basal cell carcinoma is a rare entity. Worldwide, there are 98 reported cases with the largest case series comprising only 29 cases.^{1,2} Unlike conventional prostatic acinar adenocarcinoma, primary prostatic basal cell carcinoma presents typically with nocturia, urinary urgency and acute urinary retention, on a background of normal serum PSA levels. In a minority of cases, elevated serum PSA levels have been

observed, but only in those with concomitant prostatitis or acinar adenocarcinoma.^{1,3} Digital rectal examination (DRE) findings are usually negative, except in cases with extra-prostatic extension or metastatic disease.¹

To date, histopathology with immunohistochemical analysis remain the gold standard for its definitive diagnosis. Clinical suspicion of a prostatic malignancy in the setting of normal serum PSA level however, should alert the clinician to consider primary prostatic basal cell carcinoma as one of the possible differential diagnoses.

Here, we present a case of primary prostatic basal cell carcinoma in a middle-aged gentleman and discuss its histopathological and biological features, and recent new findings in its molecular characteristics (MYB rearrangements, PTEN expression loss and EGFR over-expression), which could present opportunities for the utilisation of novel therapeutic targets in the rapidly advancing field of biologic therapy.

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HOW COMPARABLE ARE SERUM INDICES MEASUREMENTS BETWEEN LABORATORIES?

Jonathan Bush¹, Samantha Shepherd¹, Wilson Punyalack¹, Trisha Andersen², Peter Graham¹

¹The Royal College of Pathologists of Australasia Quality Assurance Programs (RCPAQAP), St Leonards, Sydney, Australia; and ²Australian Scientific Enterprise (ASE) Pty Ltd, Hornsby, Sydney, Australia

As a routine quality measure, most laboratories now quantify serum indices on patient samples and selectively withhold reporting results when interferences are identified.

Data on how different measurement systems compare was somewhat limited by the lack of an external quality assurance (EQA) program for these parameters. In 2019, the RCPAQAP, in collaboration with ASE, developed a serum indices EQA program to address this.

Methods: Serum was pooled, supplemented and lyophilised to create six linearly related samples which were distributed to 70 laboratories enrolled in the program. The RCPAQAP performed data analysis on returned results using in-house software.

Results: There were 97 participants representing five different method groups in the program. Across all platforms, haemolysis performed consistently well with CV's averaging 4.7% for the high level, whereas icterus and lipaemia CV's averaged 15.7%. A bimodal distribution was noted for icterus. Up to half of all participants reported lipaemia with incorrect units.

Discussion: This new program demonstrates the need for an ongoing peer comparison when making decisions on accepting or rejecting patient results. The bimodal distribution observed for icterus may be of concern and the variability in reporting units for lipaemia is still an area for improvement.