medical literature lines up accordingly with these produced scores.

Discussion: The study displays the developing a numeric framework for developing 'critical values' in anatomic pathology is possible, and that this correlates well with contemporary consensus.

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ANALYSIS OF QUALITY IMPROVEMENT FORMS IN ANATOMICAL PATHOLOGY IN SRI LANKAN TERTIARY CARE REFERENCE LABORATORY

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Lanka Hospital Diagnostics (LHD) is ISO 15189 Accreditation tertiary care laboratory, offering general and specialised tests in anatomical pathology. The test menu of this laboratory was upgraded from July 2014 by provision of state of the art equipment and continuous supervision by a fulltime specialist anatomical pathologist. The quality management system of LHD has also been upgraded in line with higher level of international accreditation standards such as JCIA and CAP.

Aims of this study:

1. To identify basic process or workflow deficiencies in department of Anatomical Pathology.
2. To educate all stake holders involved in laboratory workflow to take necessary corrective and preventive actions.
3. To create a database where regular data analysis is performed and required interventions are being taken.

Method: Forty-one quality improvement forms were received under department of Anatomical Pathology (24.8% of all QI forms received). The root cause analysis performed for each item and immediate corrective actions taken, preventive action identified and implemented, whenever possible.

Results: Pre-analytical errors 23 (56.1%), analytical errors 6 (14.6%), post-analytical errors 5 (12.2%) and administrative/safety issues 7 (17.1%) were identified.

Common errors included incorrect identification of samples, mislabelling of samples, using wrong fixatives, delay of transport of specimens, wrong specimen type or size selection, wrong selection of specialised tests such as IHC markers, delay in reports and laboratory safety issues. Error rate in histopathology is approximately 0.039 %.

Discussion: Immediate corrective actions were taken for identified specific issues whenever possible. Analytical problems are resolved by having validated and quality controlled methods and regular in-house education for technical staff. Preventive action will be optimised by educating operation theatre staff, billing

staff and technical staff in the laboratory. Safety issues will be addressed by the safety and quality team by enhancing the regular educational program.

AN INTERESTING SKIN NODULE – EXTRANODAL, CUTANEOUS ROSAI-DORFMAN DISEASE

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A 49-year-old Indian male presented to the dermatology outpatient clinic with a tender, pruritic and erythematous lump over the right chest. The nodule had been gradually enlarging over 2 months. No significant past medical history was noted. Clinical inspection revealed a localised papulo-nodular lesion measuring 3×3×2 cm, with several smaller satellite papules around it. No other abnormality was detected during the clinical examination.

Blood tests revealed a normal full blood count and biochemistry. A punch biopsy was performed. The histology revealed unremarkable epidermis, separated from a dense dermal infiltrate by a thin Grenz zone. The dermal infiltrate comprised large numbers of neutrophils, lymphocytes and plasma cells, interspersed with single and small groups of foamy histiocytes with multiple bland, ovoid nuclei. Many histiocytes showed emperipolesis of intact neutrophils and lymphocytes.

There was no involvement of underlying subcutaneous fat. Special stains for acid-fast bacilli and fungi were negative.

Immunohistochemistry was performed. The histiocytes within the specimen showed the following staining characteristics: S100 and CD68 positive; CD1a negative.

The final diagnosis was that of cutaneous Rosai-Dorfman disease. No further treatment was required other than topical emollients and topical steroids. The patient underwent computed tomographic scans of the upper body and head, which did not detect any lymphadenopathy.

SPORADIC CASE OF RETINAL VASCULOPATHY WITH CEREBRAL LEUKODYSTROPHY/HEREDITARY ENDOTHELIOPATHY RETINOPATHY NEPHROPATHY STROKE WITH NOVEL TREX1 MUTATION

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The prevalence of cerebral microangiopathies is under reported.¹ We present a case of a 39-year-old male with a presenting complaint of increasing confusion and speech disturbance of some months duration. MRI revealed a 3.1×2.3 cm lesion with low T2 signal, located in the left corona radiata, suspicious for a malignancy. Contrast could not be given due to chronic kidney disease. Brain biopsy showed white matter necrosis with a small vessel vasculopathy comprising patchy foci of fibrinoid necrosis and associated lymphoplasmacytic inflammation. PAS and Beta

amyloid stains failed to show characteristic changes of CADA-SIL or cerebral amyloid angiopathy (CAA). Further history revealed a protean disorder with first onset of symptoms ~20 years prior. Symptoms included retinal disease, avascular necrosis of the femoral head, stage IV chronic kidney disease, telangiectasia and Raynaud's phenomenon, some of which were attributed to scleroderma, and a recent history of deranged LFTs and chronic iron deficiency from colonic angiodysplasia. A family history of early onset dementia was noted in the patient's father. A presumptive diagnosis of a familial cerebral microangiopathy was made with strong clinical and pathological suspicion that the patient had retinal vasculopathy with cerebral leukodystrophy/hereditary endotheliopathy with retinopathy nephropathy and stroke (RVCL/HERNS). Genetic testing for *TREX1*, the three prime exonuclease repair gene implicated in this condition was performed and identified a novel and *de novo* mutation: loss of 11 nucleotides at c.929-939 leading to a substitution of glutamic acid for alanine at amino acid 310 and subsequent frame shift.² The prognosis of RVCL/HERNS is poor, with onset of neurological symptoms leading to death within 7–10 years. Recognition of suspected hereditary cerebral microangiopathies warrants genetic screening and has important implications for genetic counselling.

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A CASE REPORT OF INVASIVE DUCTAL CARCINOMA OF THE BREAST WITH PROMINENT SEBACEOUS DIFFERENTIATION

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Background: Sebaceous carcinoma of the breast is a rare entity. Sebaceous carcinoma is defined as a breast carcinoma with prominent sebaceous differentiation in no less than 50% of cells (WHO, 2012). Limited data is available regarding the significance of sebaceous differentiation.

Aim: To present a case of diagnostic interest.

Method and results: We present a case of a 77-year-old woman with a left breast mass. After an initial core biopsy she underwent a mastectomy with sentinel lymph node biopsy. Histopathology confirmed an invasive ductal carcinoma with prominent sebaceous differentiation. The tumour was ER-positive/PR-positive/Her2-equivocal, and sentinel lymph nodes were negative for malignancy.

Discussion: The proportion of tumour cells with sebaceous differentiation was approximately 50%. The differential diagnosis included carcinoma with apocrine differentiation, lipid-rich carcinoma, and liposarcoma. A review of the available literature highlights the scarcity of knowledge about sebaceous carcinoma. Very little is understood about the clinical course and prognosis, and follow up data is limited. There is an association in the cases reported to date with high grade tumours and high mitotic counts,

and the predominant type of associated breast cancer is ductal. Reported metastases have been late in onset and at sites less typical for breast malignancies. The prognostic significance of sebaceous differentiation is uncertain, and further research is warranted.

VITREOUS HYALOCYTES OF THE ADULT HUMAN EYE: A HISTOLOGICAL AND IMMUNOHISTOCHEMICAL STUDY

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Aims: Vitreous hyalocytes are thought to be the resident immune cells of the vitreous and are also thought to contribute to regulatory roles in order to maintain immune privilege in the eye. This study aims to characterise the roles and functions of vitreous hyalocytes in normal adult human eyes.

Methods: 6 normal adult human eyes were sectioned horizontally through the macula region and stained with CD68, CD163 and HLA MHC Class II (DP, DQ, and DR) antibodies. The sections were studied using light microscopy at high power fields (×40 magnification).

Results: Vitreous hyalocytes are readily found in adult human eyes. CD163 appears to be a reliable marker of vitreous hyalocytes, irrespective of location, whereas CD68 is rarely expressed. HLA and CD68 co-expression by vitreous hyalocytes may mark an immunophenotypic change associated with ageing.

Conclusions: Vitreous hyalocytes appear to be intimately associated with cortical vitreous fibres and the inner limiting membrane of the retina suggesting they are likely to be involved in vitreoretinal pathologies and disease processes.

THE PATHOLOGIC FINDINGS OF DISTAL INTESTINAL OBSTRUCTION SYNDROME, A COMMONLY OCCURRING BUT RARELY DESCRIBED COMPLICATION OF CYSTIC FIBROSIS

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This case report describes the pathologic features of distal intestinal obstruction syndrome (DIOS) in a 46-year-old man with cystic fibrosis. As the life expectancy for patients with cystic fibrosis continues to improve, adult pathologies related to this disease are being encountered with increased frequency, but with little guidance for the pathologist as to the expected gross and microscopic features. DIOS is the leading cause of bowel obstruction in adult patients with cystic fibrosis and not uncommonly proceeds to surgical resection; however, descriptions of the pathologic findings expected are difficult to come by both within textbooks and the primary literature. In this case, the macroscopic findings were of tenacious faecal material filling the ascending colon, and a white pseudomembrane-like material adherent to the colonic mucosa. The chief microscopic finding was of a striking inspissated mucin distending and plugging