nuclear dots (MND) and nuclear pore complex (NPC) respectively. They have not previously been reported in subjects with normal liver function tests (LFTs). We review the incidental incidence of these autoantibodies in our test population and their association with normal and cholestatic LFTs.

**Method:** Retrospective analysis of lineblots performed based on ANA IIF pattern of MND and NPC. LFTs were recorded from date of ANA testing and at one and two years of follow up.

**Results:** 187 lineblots were positive for autoantibody to sp100 and/or gp210 detected on the basis of ANA pattern to MND and NPC. Twenty-nine patients with anti-gp210 antibodies and 51 patients with anti-sp100 antibodies detected incidentally on the basis of ANA pattern remained biochemically and symptomatically stable during a follow up period of one year.

**Discussion:** The population identified here could serve as a basis for long term studies, contributing to our knowledge as the predictive value of these specificities detected incidentally is currently unknown.

**AUTOANTIBODIES DIRECTED TO CENTROMERE PROTEIN F IN A PATIENT WITH BRCA1 GENE MUTATION**

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**Aim:** Autoantibodies directed to centromere protein F (CENP-F) were first reported in 1993 and their association with malignancy has been well documented. We present a case of this autoantibody detected in a 47-year-old female with BRCA1 gene mutation associated with bilateral breast cancer and ovarian cancer.

**Method and results:** Antinuclear autoantibody immunofluorescence carried out for possible inflammatory arthropathy showed high titre nuclear speckled II (NSD) pattern consistent with CENP-F that was confirmed by addressable laser bead immunoassay (ALBIA) for the C-terminal p-F4, an immunodominant CENP-F peptide.

**Discussion:** We review the current literature on CENP-F, its association with breast cancer and present the first documented case of this antibody being identified in a person with BRCA1 gene mutation.

**RETROSPECTIVE AUDIT OF THE FREELITE™ SERUM FREE LIGHT CHAIN (SFLC) ASSAY: TESTING PATTERNS, CONCORDANCE WITH SERUM AND URINE ELECTROPHORESIS/IMMUNOFIXATION AND CORRELATION WITH THE N LATEX FLC ASSAY**

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**Aims:** A retrospective audit of the Freelite™ SFLC assay was conducted to compare concordance with electrophoresis (EPG)/immunofixation (IFX) and correlation with the N latex FLC assay.

**Methods:** 244 samples collected over 3.5 months were studied by nephelometry using the Freelite™ and N Latex FLC assays. Results were compared with serum (S) and/or urine (UEPG)/IFX. The precision and linearity of the N latex FLC assay was examined.

**Results:** 94% of samples with kappa restriction, and 100% with lambda restriction had detectable paraprotein by SFLC/IFX or UEPG/IFX. The correlation between the two assays was good for kappa (R^2 = 0.935) but not lambda (R^2 = 0.775) especially when lambda was above the ULN (R^2 = 0.406). Agreement in the categorical diagnosis of restricted SFLC was good (Cohen’s kappa = 0.701). In discordant samples the Freelite™ assay displayed higher agreement with IFX (53% vs 47%). The N latex FLC assay displayed good precision and linearity.

**Discussion:** SFLC testing is popular despite traditional methods detecting paraproteins in most cases. Correlation between the Freelite™ and N latex FLC assays is better for kappa than lambda FLC. The two assays are not equivalent and the Freelite™ assay displays better agreement with IFX. Care should be taken by interpreting physicians and laboratories considering switching assays.

**IMMUNOPHENOTYPING OF PLASMA CELL AND THE UTILITY OF FLOW CYTOMETRY IN PLASMA CELL DYSCRASIAS**

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**Aim:** To prospectively compare the performance of CD27/CD28/CD81/CD117/CD126/CD147/CD152/CD229 to current markers (gating- CD38/CD138/CD45; clonality- w/A-light chain; phenotype- CD19/CD56) to assess utility in identifying neoplastic plasma cells (PC) and distinguishing monoclonal gammapathy of unknown significance (MGUS) and multiple myeloma (MM). To retrospectively assess polychromatic flow cytometry’s (PFC) contribution to diagnosing plasma cell dyscrasias through correlation with other investigations.

**Methods:** Antibody panels including new markers (CD27/CD28/CD81/CD117/CD126/CD147/CD152/CD229) were run on BM samples. Database analysis of bone marrow samples at St Vincent’s hospital was conducted to correlate PFC with other investigations.

**Results:** CD19 and CD19/CD147 were the best single marker and 2-marker combination respectively for identifying monoclonals. CD229 was best at differentiating MM and MGUS, and additional markers did not improve differentiation. PFC correlated with electrophoresis, cytogenetics and imaging. PFC detected 29 monoclonal cases that required PFC differentiation classified as polyclonal. These cases had low PC numbers and polyclonal PC backgrounds.

**Conclusion:** CD19/CD147 could be more useful than CD19/CD56 in distinguishing monoclonal and polyclonal populations. CD229 may help PFC differentiate MM from MGUS. Despite PFC’s underestimation of PCs, PFC correlates with other investigations and may be particularly useful in minimal residual disease.