

antibodies. The clinical indication (where available) was PAP in 8 cases, and infection in 24 cases, of which 21 were for cryptococcal infection. Anti-GM-CSF antibodies were detected in 34.6% ($n=28$) of patients tested.

Conclusion: Anti-GM-CSF antibodies are described in otherwise immunocompetent patients with *Cryptococcus* and associated infections. The assay has important diagnostic potential, and may have therapeutic implications.

AUGMENTIN ALLERGY OR NOT?

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Beta-lactam hypersensitivity is important in clinical practice. It is generally believed that skin-test hypersensitivity decreases with time and resensitisation after tolerated application is rare.

We presented a case of perioperative anaphylaxis due to suspected augmentin allergy. A 76-year-old man scheduled to undergo cystolitholapaxy developed hypotension, bradycardia, bronchospasm and desaturation after giving lignocaine, bupivacaine and augmentin for spinal anesthesia. Operation was abandoned. Serum tryptase was elevated to 53.8, compared to baseline level of 3.6. After the stabilisation of the patient, augmentin was continued for one week though suspected as one of possible culprits, whereas no reaction resulted.

Basophil activation tests and specific IgE for involved medications were all negative. Immediate readings for skin test were negative for latex, fentanyl, lignocaine, bupivacaine and PPL/MDM, weakly positive for benzylpenicillin and definitely positive for amoxil and augmentin. Graded challenge of lignocaine subcutaneously was tolerated. Although further oral challenge to augmentin was not carried out, diagnosis of immediate allergic reaction to augmentin was highly probable.

To our best knowledge, this is the first reported case of augmentin allergy presented as anaphylaxis yet tolerated oral medication and later proven by positive skin test. It is thought to be related to the refractory period after anaphylaxis.

References

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A COMPARISON OF OUTLIER ELIMINATION AND REFERENCE INTERVAL CALCULATION METHODS WITH Ig TYPE DATA

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Reference intervals are essential for laboratory diagnosis, but their calculation can pose challenges. We compared immunoglobulin reference intervals constructed using parametric, non-

parametric and robust methods, along with Tukey and block difference/range (D/R) elimination, calculated from a dataset of 37,000 patient records linked by age and gender. Outlier elimination was significantly more determinative of the reference intervals than the calculation method. This is a novel result as previous literature has focused almost entirely on the calculation method, and has not considered outlier elimination. Tukey elimination was more aggressive than block D/R elimination and once it was applied, variation between the calculation methods was minimal. Indeed, block D/R elimination rarely eliminated any observations and was essentially redundant on this data. The non-parametric intervals were more sensitive to outliers, which in the Ig context led to higher and wider intervals for the older age groups. There were only minimal differences between robust and parametric reference intervals. This suggests for Ig type data, Tukey elimination should be preferred over the block D/R method, and the robust calculation method has limited use.

VALIDATING AN IMMUNODEFICIENCY PANEL ON THE BD FACSLyRIC

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Lymphocyte subset immunophenotyping is performed to monitor immune status, HIV therapy and rituximab anti-CD20 monoclonal antibody therapy. The immunodeficiency panel identifies major immune subsets: CD3, CD4, CD8, CD16, CD19 and CD20 using a one tube flow cytometric method and reagent cocktail previously validated within the laboratory (a user defined assay). We recently validated our immunodeficiency panel on the BD FACSLyric as we prepare to replace our BD FACSCanto II analysers.

Method: Samples submitted to SNP for routine lymphocyte subsets, as well as CD-Chex Plus Immunophenotyping control were run in parallel on the FACSCanto II and the FACSLyric flow cytometers over a number of days. All data was analysed using De Novo Software FCS Express v5.

Discussion: Good reproducibility between instruments was demonstrated with the FACSLyric consistently producing discrete populations allowing a more accurate gating of populations. The FACSLyric requires CST and assay settings to be updated daily which ensures populations of interest are running at similar mean channel fluorescence each day.

A COMPARISON OF THE RESULTS OF THREE METHODS OF MIC DETERMINATION

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In Australia diagnostic laboratories have the choice of several susceptibility testing methods, including the disc methods, CDS, CLSI and EUCAST. Two of these methods, CDS and CLSI, are calibrated against agar dilution, while EUCAST is calibrated