**AB36 Abstracts**

**112** Evaluated the Diagnostic Utility of Interferon-\(\gamma\)-gamma Enzyme-Linked Immunospot (ELISPOT) Assays in 117 Patients with Non-Immediate Drug Hypersensitivity Reactions

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**RATIONALE:** To evaluate the diagnostic utility of Interferon (IFN) -\(\gamma\)-gamma Enzyme-linked Immunospot (ELISPOT) assay in non-immune drug hypersensitivity reactions (DHR).

**METHODS:** Medical records of patients who were diagnosed non-immune DHR and underwent ELISPOT at our hospital between 2012 and 2015 were retrospectively examined.

**RESULTS:** Total 117 individuals were included (mean age 53 years, range 7-97), most were in-patients. Sixty-six (56.4%) were female. Thirty (25.6%) were immunocompromised. One-third concurrently received systemic corticosteroids. For the clinical entities, 46(39.3%) subjects experienced severe cutaneous adverse reactions and 43(36.8%) had maculopapular exanthens (MPE). In the majority of cases, ELISPOT was performed with multiple implicating medications simultaneously and within a month after symptom onset. Number of drug-specific IFN-\(\gamma\)-gamma secreting cells was analyzed by incubating PBMCs with culprit or alternative drugs, and more than 20 spot-forming cells/10\(^6\)(PBMCs) was considered positivity. Entirely, sixty-nine agents had been tested. Majority were antibiotics, allopurinol, anticonvulsants, anti-tuberculosis, non-steroidal anti-inflammatory drugs (NSAIDs) and radiocentrast metal. Among those investigated, 45(38.5%) patients yielded a positive test. Proportion of positive outcomes was 62.5% in acute generalized exanthematous pustulosis, 50% in acute interstitial nephritis, 41.8% in MPE, 40.0% in drug rash with eosinophilia and systemic symptoms and drug-induced hepatotoxicity, 35.2% in Stevens-Johnson syndrome, 33.3% in delay urticaria and angioedema, 25% in fixed drug eruption, and 16.7% in toxic epidermal necrolysis. Subsequently, 41(35%) persons underwent drug provocation test. Of which resulted in the sensitivity, specificity, positive predictive value, negative predictive value of 50%, 95.1%, 77.8% and 84.8%, respectively.

**CONCLUSIONS:** IFN-\(\gamma\)-gamma ELISPOT could be potentially applied in management of DHR.

**114** Determining Non-Irritating Concentration for Intradermal Skin Test with Commonly Prescribed Antibiotics in Korean Adults

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**RATIONALE:** Although the data on validity of skin test with drugs expect for penicillin is still scarce, positive skin reaction at non-irritating concentrations with relevant history is generally accepted for diagnosis of drug allergy. In this study, we intended to examine the maximal non-irritant drug concentrations for intradermal skin test in Korean adults.

**METHODS:** Sixty one healthy volunteers were recruited. Seventeen parenteral antibiotics including beta-lactams and fluoroquinolones were evaluated. Skin tests were performed by two steps with antibiotics as following; A) Intradermal skin test by using full strength concentration of each drug and, if the result was positive, serially diluted concentration till the result was negative; B) Confirming the concentration on step A in 20 more subjects. All subjects were allowed to participate in multiple testing using different drugs.

**RESULTS:** The mean age of the subjects is 35.0 and females are more than males (77%). Both previous drug concentrations based on literatures and the results of this study are reproducible in ampicillin/sulbactam, aztreonam, ciprofloxacin, clindamycin, nafcillin and penicillin G. Only ceftriaxone among the cephalosporins showed the same result as the previous value. In addition, the discrepancy between previous known concentrations and the values of this study is more 10-fold and over in azithromycin, levofloxacin, meropenem, piperacillin/tazobactam, SM/TMP, and vancomycin. Inter-individual variability of the skin test results using cefotetan, azithromycin, and vancomycin was more than 100-fold range.

**CONCLUSIONS:** To improve the reliability of skin test, study with the numerous subjects would be necessary to standardize non-irritating drug concentration for skin test.