higher in Iranians (P-value: 0.039) and in patients whose initial regimen was changed due to adverse drug reaction. (P-value: 0.01) Conclusion: MDR-TB treatment using standardized regimen showed favorable outcome in our study, comparing with previous studies.

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Investigations of Polymorphisms Associated with Cytochrome P4503A5 and MDR1 in Patients with Severe Leprosy Reactions Treated with Cyclosporin A

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Background: The only treatment available for severe leprosy Type 1 Reactions (T1R) is prednisolone but a significant number of patients do not respond to treatment. There have been 2 case reports of successful treatment of non-responsive T1R with cyclosporin A (CyA). This study uses an Indian microemulsion formulation of CyA (Panimmune) as monotherapy to treat patients with severe T1R. Evidence is now available showing that some ethnic groups metabolise CyA differently. Genetic differences have also been identified in the genes responsible for CyA metabolism (cytochrome P450) in various ethnic groups. It is important to identify any groups that metabolize or absorb CyA differently as this will help in deciding the optimal dose to be used.

Aims: To identify any differences in dose requirements for CyA treatment of severe leprosy T1Rs in the 2 racial groups and whether these differences were related to genetic variations.

Methods: 33 Ethiopian and 12 Nepali patients with severe T1Rs were recruited and treated with CyA at a dose of 5–10 mg/kg/day; dose increases were dependent on clinical improvement. Trough blood concentrations of CyA were analysed using a Liquid Chromotography/Tandem Mass Spectrometry assay. Pharmacokinetic studies were carried out on a subgroup of patients. DNA was extracted from whole blood and samples genotyped using PCR and restriction length polymorphism (RFLP). For CYP3A5, AA, AG and GG genotypes were identified and for MDR1, CC, CT and TT genotypes were identified.

Results: 77% Ethiopian patients needed a higher dose of CyA than the Nepalis to show a clinical improvement. Patients with the TT and GG genotypes achieved a higher Cmax and area under the curve (AUC) for CyA than those with CC/CT or AG/AA genotypes respectively.

Conclusion: Polymorphisms in CYP3A5 and MDR1 may explain variation in dose requirements for CyA in different racial groups. This is important for all drugs that are heptatically metabolised and in particular HAART medication.

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Can Outer Membrane Vesicle of Group B Meningococci be Applied as an Adjuvant in Immunization of the Rabbit Against Serogroup A Neisseria Meningitidis?

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Keywords: OMV; Adjuvant; Neisseria meningitidis serogroup A & B; Bacterialic activity

Background: Since the use of new adjuvants in designing new vaccines against most of infectious diseases should be improved, many candidates are recommended for modulating an immune response to an antigen. Neisseria meningitidis serogroup B outer membrane vesicle (OMV) has been used previously by Siadat et al (2007), as a carrier for polysaccharide immunogens. In this study OMV used as an adjuvant for group A meningococcal capsular polysaccharide (GAMP) and was tested in Newzeland white rabbit for bacterialic antibody activity induction.

Methods: The complex of OMV with GAMP, in no covalent form, and control were injected intramuscularly into groups of four rabbits with boosters on day 14 and 28 after primary immunization. The following groups were used as control: 1.GAMP 2.OMV 3.normal saline. The serum samples collected on days 0, 14, 28 and 42 and tested by complement mediated bactericidal assay against serogroup A and B meningococci according to the world health organization protocol.

Results: Rabbits given three dose of the complex of serogroup B meningococcal OMV with GAMP developed high level of serum bacterialic activity against serogroup A meningococci after 42 days in comparison with the GAMP and OMV control group (P < 0.005). Bactericidal titer against serogroup B meningococci of the GAMP plus OMV complex showed no significant difference in comparison with the OMV containing control (P > 0.005).

Conclusion: The results indicate that the combination of OMV with GAMP, in non covalent form, would be able to induce a high level of bacterialic antibody response in comparison with GAMP. The OMV of Neisseria meningitidis is a potent protein carrier in the induction of immune system but in this article the role of OMV is studied as an immune system promotor in non-covalent form and without any conjugation process(as an adjuvant) in order to induce immune response against three prevalent serogroups of Neisseria meningitidis.