Cyclosporine is not the drug of choice for renal transplanted patients and increases the risk of cardiovascular and cerebrovascular accidents

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The aim of the study was to investigate if the average Pakistanis and average Italian kidney post transplanted patients have same episodes of adverse events after intake of cyclosporine, tacrolimus and corticosteroids and also to green light the safest as well as hazardous drug among these three and to explain the appropriate reasons for effectiveness and ineffectiveness of the respective drug. The subjects were randomly selected including 706 Pakistani and 568 Italian patients both male and female with inclusion criteria of teen age and geriatric patients as well to estimate the clinical response. Blood sample was taken from each subject in order to determine the amount of creatinine, glucose, hemoglobin and cholesterol which are ultimate parameters for cardiovascular and cerebrovascular accidents. Urine sample was also taken in order to determine level of protein. Also DFG (Delayed Graft Function) was observed in these subjects. Thirty one percent of Italian men and 26% of Italian women (out of 568 Italian patients) suffered from hypercreatininemia and hyperproteinuria including hemoglobinemia and hypercholesterolemia and only a minority of sample population was subjected to hyperglycemia whereas 22% of Pakistani men experienced from same adverse effect but for Pakistani women the percentage was 21.50 (out of 706 Pakistani patients). The sample was selected from different age groups but it was observed that majority of adverse effects were found between age group 46-55 and the percentage of occurrence of adverse effects was found to be least between age group 17-25. It was observed that for immuno-compromised patients DGF, mortality rate and risk of transplant failure has been shown minimum for corticosteroids, intermediate for tacrolimus and maximum for cyclosporine and for immuno-competent patients, tacrolimus was effective drug. Abnormal kidney function gives favourable place for growth of many bacteria and ultimately level of protein become raise and there will start competitive binding between these proteins and cyclosporine as cyclosporine itself is composed of 11-amino acids so those having same ‘R’ functionality with the attaching side of cyclosporine will compete and finally cyclosporine will not be available to bind with its receptor and will give rise to series of adverse events. Also it was observed that patient’s adherence was maximum with corticosteroids as they produce synergistic effect with adrenal glands steroid production thereby suppressing immune system with diminished adverse effects and was gradually decreasing as we move from tacrolimus to cyclosporine. These data suggest that immuno-suppressant drugs should be monitored with special care depending upon the immune status of the patient.

Biography
Javeria Fazal will complete her Master’s program in coming July (2015) from University of Calabria, Italy. She completed PharmD (Doctor of Pharmacy) from Pakistan and this is her first research throughout her academic career and wants to precede it to her PhD program.

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