

P-2.33**THE UTILITY OF QUANTIFERON MONITORING BASED ASSAY IN ASSESSING CLINICAL EVENTS AMONG KIDNEY TRANSPLANT RECIPIENTS**

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Background: Immediate post transplantation care is crucial and requires close monitoring. Traditionally, transplant physicians relied on the crude markers such as therapeutic drug monitoring and clinical events to guide in the management of immunosuppression therapy. Quantiferon Monitor (QFM) is an immune based monitoring assay assessing IFN- γ which can be used as an objective marker of net immune function among kidney transplant recipients. Thus, the objective of this study is to look at the IFN- γ level post transplantation in relation to the incidence of Cytomegalovirus (CMV) viraemia, BK viraemia and hospitalisation.

Methodology: This is a prospective longitudinal study recruited all new kidney transplant recipients at University Malaya Medical Centre. The QFM were performed either at 1-month, 3-month, 6-month or 12-month post kidney transplantation. Based on the manufactured guidelines, IFN- γ (IU/mL) level < 15 IU/mL is low IFN- γ response, 15 – 1000 IU/mL is moderate IFN- γ response and > 1000 IU/mL is high IFN- γ response to innate and adaptive immune stimulants. CMV polymerase chain reaction (PCR), BKV PCR and protocol biopsy were performed according to standard protocol. Hospital admissions for any source of infection were recorded from the electronic medical report.

Results: A total of 85 patients with 206 samples for QFM were collected at designated interval. The mean IFN- γ level were 44.49 ± 74.07 IU/mL at 1-month, 94.21 ± 141.57 IU/mL at 3-month, 132.47 ± 168.33 IU/mL at 6-month and 221.52 ± 219.31 IU/mL at 12-month post transplantation. The levels were in increasing manner. This was correlated with the reduction of immunosuppression post transplantation. The incidence of CMV viraemia, BK viraemia and hospitalisation for any source of infection were significantly associated with low IFN- γ .

Conclusion: IFN- γ is a potential marker of net immune function among renal transplant recipients immediate post transplantation. The initial level would be able to serve as guiding tools for further reduction in immunosuppression and ultimately reduce the risk of infection.

P-2.34**THE ASSESSMENT OF STRESS OXIDATIVE INDICES OF SUPEROXIDE DISMUTASE AND NITRIC OXIDE SYNTHASE IN PATIENTS WITH DELAYED GRAFT FUNCTION**

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Background: Delayed graft function (DGF) is a transplant complication which means a need to dialysis throughout the first week after transplantation. This study aimed to ascertain the relationship between the two oxidative stress-related factors of Superoxide dismutase (SOD) and Nitric oxide synthase (NOS) with DGF after transplantation.

Materials and Methods: This case-control study was done in 2 groups of 43 kidney transplant patients with and without DGF. The control group included the patients who didn't show DGF symptoms. Then, serum levels SOD and NOS in all blood samples were measured by ELISA.

Results: Serum SOD and NOS levels were significantly higher in the DGF group compared to those in the control group ($p \leq 0.001$). SOD and NOS serum levels significantly affect DGF ($p < 0.001$) in such a way that they may be diagnostic factors of DGF.

Conclusion: This study showed a significant relationship between SOD as well as NOS and DGF. Therefore, plasma levels of SOD and NOS may be used as diagnostic tools to determine the risk of DGF.