



Glomerular diseases and Immunosuppression in COVID-19 Times

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Abstract:

Patients with Nephrotic Syndrome and Glomerulonephritis like Systemic Lupus Erythematosus (SLE), ANCA associated Glomerulonephritis and patients with other glomerular diseases, who are on moderate to high doses of immunosuppression, are at an increased risk of severe COVID infection because of their immunosuppressed state. However there are no studies to quantify the increase in risk in relation to the amount of immunosuppressant medications or their duration of use. Hence there is a lot of uncertainty regarding the management of these patients amongst the nephrology fraternity. We acknowledge that presently there is no data on this aspect, and what is being suggested is based on scientific logic and extrapolation of evidence from other infections.

A simple way to evaluate these patients is to classify them into newly diagnosed patients and those on follow up on immunosuppressant medications. Newly diagnosed patients with Idiopathic nephrotic syndrome due to MCD, FSGS IgA Nephropathy, and Membranous Nephropathy as well as patients with SLE, ANCA associated GN with normal renal functions should be managed conservatively with diuretics, salt restriction and use of ACEI or ARBS. Unless there is a progressive deterioration of renal functions, steroids and immunosuppressive agents should be withheld.

For a Follow-up Patients on Immunosuppression: As per the present evidence, patients should plan to complete standard induction medication unless directed otherwise by their renal team.

A risk stratification approach is suggested to help manage these patients. Some patients, particularly those on steroids, intravenous cyclophosphamide, and biologics, will be significantly immunosuppressed and should, therefore, be considered 'high risk'. This is particularly true in the induction phase of their treatment. Others on steroid monotherapy may be at intermediate risk.

If doing well, all patients should continue to take their maintenance medication unless directed otherwise by their treating team. Patients should stay on their maintenance immunosuppression and steroid, provided they are infection-free. Immunosuppressive therapy needs to be reviewed on a case by case basis balancing the risk of inadequately treated disease, or acute



relapse, against the risk of the effect of COVID-19 infection in the individual patient.

Biography:

Sanjeev Gulati played a pivotal role in the Dialysis and Transplant programme at SGPGI, Lucknow which is amongst the largest programmes in the country. ... He is the Vice President of Indian Society of Organ Transplantation and Member Governing Body Indian Society of Nephrology. Nephrology.

Recent Publications:

1. Rossing P (2006) Diabetic nephropathy: Worldwide epidemic and effects of current treatment on natural history. *Curr Diab Rep.* 6:479-483.
2. Abraham Cohen-Bucay, Gautham Viswanathan (2012) Urinary Markers of Glomerular Injury in Diabetic Nephropathy. *International Journal of Nephrology.* Article ID 146987, 11 pages.
3. Macisaac RJ, Jerums G (2011) Diabetic kidney disease with and without albuminuria. *Curr Opin Nephrol Hypertens* 20:246-257.
4. Wanner C, Inzucchi SE, Lachin JM, et al. (2016) Empagliflozin and Progression of Kidney Disease in Type 2 Diabetes. *N Engl J Med.* 375(4):323-334.
5. Jian Wu, Xiaohong Shao, Kan Lu, Jing Zhou, Miaomiao Ren, Xin Xie, Jibo Liu, Yi Xu, Yaqin Ding, Xiaoyu Shen, Chunling Zhu (2017) Urinary RBP and NGAL Levels are Associated with Nephropathy in Patients with Type 2 Diabetes *Cell Physiol Biochem.* 42:594-602.

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