

## Biopsy Proven Polyoma (BK) Virus in Saudi Kidney Recipients - Prevalence, Clinicopathological Features and Clinico-Pathological Correlations

**Authors :** Sarah Hamdan Al-Jahdali, Khaled Alsaad, Abdullah Al-Sayyari

**Abstract :** Objectives: To study the prevalence, clinicopathological features, risk factors and outcome of biopsy proven polyoma (BK) virus infection among Saudi kidney transplant recipients and compare them to negative BK virus group. Methods: We retrospectively reviewed the charts of all the patients with biopsy-proven polyoma (BK) virus infection in King Abdulaziz Medical City in Riyadh between 2005 and 2011. The details of clinical presentation, the indication for kidney biopsy, the laboratory findings at presentation, the natural history of the disease, the pathological findings, the prognosis as well as the response to therapy were all recorded. Results: Kidney biopsy was performed in 37 cases of unexplained graft dysfunction. BK virus was found in 10 (27%). Out of those 10, 3 (30%) ended with graft failure. BK virus occurred in all patients who received ATG induction therapy 100% versus 59.3% in the non BK virus patients ( $p=0.06$ ). Furthermore, the risk of BK virus was much less in those who received acyclovir as an anti-viral prophylaxis as compared to those who did not receive it ( $p=0.01$ ). Also, patients with BK virus weighed much less (mean  $46.7 \pm 20.6$  Kgs) than those without BK virus at time of transplantation (mean  $64.3 \pm 12.1$ ). Graft survival was better among deceased donor kidneys compared to living ones ( $P=0.016$ ) and with older age ( $P=0.005$ ). Conclusion: Our findings suggest the involvement of ATG induction therapy, the lack of antiviral prophylaxis therapy and lower weight at transplant as significant risk factors for the development of BK virus infection.

**Keywords :** BKVAN, BKV, kidney transplant, Saudi Arabia

**Conference Title :** ICNT 2015 : International Conference on Nephrology and Therapeutics

**Conference Location :** London, United Kingdom

**Conference Dates :** May 25-26, 2015