Abstract

BK Polyoma virus associated nephropathy has emerged as a leading viral cause of early kidney transplant failure. Polyoma virus infection in kidney transplant recipients is of increasing interest and research. This is a descriptive cross sectional study. The aim of this study was to detect BK polyoma virus in Sudanese renal transplantation recipients using urine cytology and molecular biology technique (PCR).

One hundred and fifty urine Samples were collected from renal transplantation recipients in the Sudanese renal transplantation society clinic. Samples were centrifuged and prepared to be stained with Papanicolaou method. The remained deposit was prepared for PCR technique, extraction was done using guanidine technique.

Out of the 150 patients 97 (64.67%) were males and 53(35.33%) were females. Most of the study group was transplanted for duration less than 25 years. A cytological result among the study group was as follow 5(3.33%) showed the nuclear inclusions associated with BK polyoma virus infection. The PCR finding showed 11(7.33%) positive for BK polyoma virus DNA.

The results of this study found that urine for cytology and PCR can be used for detection of BK polyoma virus infection. This study found that BK polyoma virus infection is associated with renal transplant recipients. And no association between BK polyoma virus infection in renal transplantation recipients and sex, duration of transplantation and types of immunosuppressive drugs study, this finding is agreement with previous work in Sudan and international literature.
Urine cytology is a simple, rapid, and cost-effective method which can be used for detection of BK polyoma virus infection. The PCR technique is more reliable and highly sensitive in the detection of the BKV infection.

**III**

**The Exclusiveness**


'Man al-sal bi 150 mriyam 97 (64.67%) min al-dhukor wa 53 (35.33%) man al-'inah. Wa kahat madah al-zara'a 'afl min 25 umara. Al-taghilat al-kuwwiya bi min jamahiyah al-ardasa kan al-niha yatihi 5 (3.33%) 'akhtarat al-mukhaliya al-murtibiyaBagiroos bi kibooliyuma, wafqa l-nitaqa (taflak al-bilmara al-mutsala) 11 (7.33%) kahat 'ayjibiyah li l-humus al-nuwayi l-bagiroos.
