

VANCOMYCIN-INDUCED RENAL TOXICITY THROUGH THERAPEUTIC DRUG MONITORING IN DAILY PRACTICE

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AIM AND OBJETIVES:

To determine the incidence of nephrotoxicity associated with the use of vancomycin in monitored patients and identify factors related to its occurrence.

MATERIAL AND METHODS:

Retrospective, observational study in patients who underwent pharmacokinetic monitoring between 2022 and January 2023, in a third-level hospital. Demographic data and information related to antibiotic treatment were collected, including duration and indication, initial dose and frequency of administration, minimum steady-state concentration of vancomycin, and renal function data: baseline creatinine, creatinine at the start of antibiotic treatment, and at two days to assess the development of Acute Kidney Injury (AKI), defined by the Kidney Disease: Improving Global Outcomes (KDIGO) guidelines as an increase in creatinine by 0.3mg/dL compared to the initial value after two consecutive days of treatment.

These data were analyzed with Jamovi software.

RESULTS:



93 patients



71% men

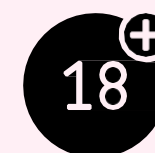


mean age 62
(18-92)



8.6% of the patients met the criteria for AKI secondary to vancomycin.

Factors associated with nephrotoxicity:



Age equal to or greater than 65 years (p=0,04)



Being female (p=<0,001)



Having a BMI equal to or greater than 30kg/m² (p=0,07)

CONCLUSION AND RELEVANCE:

We observed an advanced age, being female, a BMI over 30kg/m² and a high minimum concentration of vancomycin as factors associated with nephrotoxicity. Given the incidence of AKI secondary to vancomycin treatment, it's important to recognize the factors associated with its occurrence in order to identify patients who may benefit from pharmacokinetic monitoring, thus optimizing treatment and limiting nephrotoxicity.



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