doi:10.20396/revpibic.v0i0.id

XXVI Congresso de Iniciação Científica Unicamp
17 a 19 de outubro Campinas | Brasil

Potential adverse drug events from medicines used by patients with chronic kidney disease: pre- and post-transplantation

Raquel Cristina Prando Resende*, Alessandra Martins Lother, Erika Christiane Marocco Duran, Sandra Cristina Veiga de Oliveira Santos.

Abstract
This study aims to identify the medications used by the patient with chronic renal disease in the pre- and post-transplantation and their main potential adverse events. This is a retrospective documentary study, with a quantitative approach. Data from 81 patients submitted to renal transplantation from April to December 2017 were included. Data were analyzed by descriptive statistics. There was high use of polypharmacy. The classes of drugs most used were composed of drugs that act on the alimentary tract and metabolism and on the blood and hematopoietic organs. The five most prescribed drugs were Omeprazole, Folic Acid, Complex B, Prednisone and Bactrim. The potential most frequent, common and serious Adverse Drug Events presented were nausea, dizziness, heart rhythm dysfunction and anaphylaxis. It is observed that there is a high potential for clinically relevant Adverse Drug Events to occur in chronic kidney patients submitted to renal transplantation.

Key words: *Drug-Related Side Effects and Adverse Reactions; Nursing; Patient Safety.*

Introduction

Individuals with Chronic Renal Disease submitted to kidney transplantation (Tx) commonly use polypharmacy, constituting an important risk group for the occurrence of Adverse Drug Events (ADEs)[1]. These events cause clinical and economic impact, also compromising patient safety[2]. Therefore, it is important to know these events in order to adopt measures that avoid unnecessary damages to the individual, aiming at improving the quality of care provided.

In this context, this work aims to identify the medications used by the patient with chronic renal disease in the pre- and post-transplantation and their main potential adverse events.

Results and Discussion

The profile of the population submitted to renal transplantation in this study shows a predominance of male patients (67.9%) with a mean age of 50 years (SD: 12.33). The most frequent diagnoses were hypertensive nephropathy (38.3%) and diabetic nephropathy (24.7%). The prevalent comorbidities were systemic arterial hypertension (76.5%) and diabetes mellitus (28.4%).

113 different drugs were identified. It was observed that 80% of patients before transplantation and 100% of subjects after renal Tx made use of polypharmacy. There was mean use per patient of six pre-Tx and ten post-Tx drugs. The most commonly used classes of drugs were food and metabolic drugs and blood and hematopoietic organs (100%), followed by systemic hormonal preparations (97.5%), general anti-infectives (97.5%), cardiovascular system (93.8%) and anti-neoplastic and immunomodulatory agents (91.4%). The five most prescribed drugs were Omeprazole (98.8%), Folic Acid (95.1%), Complex B (95.1%), Prednisone (92.6%) and Bactrim (87,7%).

Potential common adverse events are predominantly related to the gastrointestinal (71.6%) and neurological (64.7%) systems, while the potential serious adverse events are associated with cardiovascular (54.9%) and immune (50%) systems. The most common adverse events were nausea, dizziness, diarrhea, headache and vomiting, while in severe adverse events there was a predominance of cardiac rhythm dysfunction, anaphylaxis, anemia, convulsion, and hepatic insufficiency.

Reactions such as nausea and drowsiness are common and, even with low severity, cause discomfort and interfere with the patient's quality of life. Therefore, even common events like these ones need attention[2].

Conclusions

I The results demonstrate that there is a high potential of clinically relevant ADEs in individuals with chronic kidney disease submitted to renal transplantation. The presented data open perspective for the improvement of the drug therapy in chronic renal patients in order to minimize and to prevent the incidence of ADEs and its complications. In addition, they support reflection on the responsibility of the health team and the nursing professional in the development of actions that guarantee the safety of the renal patient submitted to the transplant and its drug therapy.

Acknowledgement

We thank the promotion of research subsidized by the UNICAMP Student Support Service (SAE) in conjunction with the National Council for Scientific and Technological Development (CNPq).

[1] Hoffmann F, Boeschen D, Dörks M, Herget-Rosenthal S, Petersen J, Schmiemann G: Renal insufficiency and medication in nursing home residents—a cross-sectional study. Dtsch Arztebl Int. 2015;112: 92–8.

[2] Sousa LAO, Fonteles MMF, Monteiro MP, Mengue SS, Bertoldi AD, Pizzol TSD et al. Prevalence and characteristics of adverse drug events in Brazil Cad. Saúde Pública. 2018;34(4):e00040017.