ANALYSIS OF CHANGES IN MANAGEMENT OF CATHETER RELATED INFECTIONS IN HAEMODIALYSIS AFTER IMPLEMENTATION OF A PROTOCOL

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BACKGROUND

Management of catheter-related infections (CRI) depend on the severity, type of catheter and need to keep it. When it is documented, systemic antimicrobial therapy should be started, as antibiotic lock therapy if the central venous catheter (CVC) is not removed.

We reviewed management of CRI in patients undergoing hemodialysis during 2 years and found that only 18.7% of patients had properly handling, so we decided to develop a treatment protocol of this type of infections with the nephrology department.

PURPOSE

To analyze changes in the management of CRI in patients undergoing hemodialysis after implantation of a management protocol.

MATERIALS AND METHODS

An observational and retrospective study was carried out during 6 months in patients undergoing hemodialysis in which IV antibiotic therapy was initiated after the implementation of a CRI management protocol and comparison with the results obtained in a previous study to the implementation of this protocol. The following variables were recorded: sex, age, type of venous access, type of extracted sample (blood cultures, exudate catheter or other sample), microorganisms isolated, IV antibiotics used and antibiotic lock therapy in patients with CVC.

RESULTS

24 requests for IV antibiotics for 18 patients were analyzed. 66.6% were men, median age 68.9 years and 61.1% of patients had CVC. Blood cultures samples were collected in 50% patients and other sample obtained were urine culture (20.8%), wound exudates (20.8%) and catheter exit site exudates (12.5%).

There was no catheter-related bacteremia because all blood cultures were negative.

There were 10 positive results for rest samples and Pseudomonas aeruginosa was the most common isolate (50%) followed by coagulase negative Staphylococcus (20%).

The most common treatment was vancomycin monotherapy (25%), followed by ceftazidime monotherapy (20.8%), combination of both drugs (16.7%) and gentamicin (12.5%).

Antibiotic lock therapy was performed at 70.8% of patients with CVC.

Also, 12 pharmaceutical interventions about antibiotic selection, treatment duration or suspension because of negative results were made, and 66.7% were accepted.

CONCLUSIONS

Results have improved after the implementation of a CRI management protocol, particularly antibiotic lock therapy (from 18.7% to 70.8%), although it is still necessary to reinforce need of taking blood cultures in serious infection to discard CRI.