



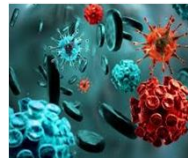
ANALYSIS OF INFECTIONS ASSOCIATED WITH CENTRAL VENOUS CATHETERS USED FOR ADMINISTRATION OF PARENTERAL NUTRITION IN A THIRD LEVEL HOSPITAL

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BACKGROUND AND IMPORTANCE

Central venous catheters (CVC) are devices used to draw blood and give treatments, including intravenous fluids and parenteral nutrition (PN), drugs, or blood transfusions. Among side effects, bloodstream infections (BSIs) are considered to be the most severe complication of healthcare that can occur, with a significant increase in morbidity and mortality.



AIM AND OBJECTIVES

To determine the rate of catheter-related bacteremia (CRB) in hospitalized patients receiving central parenteral nutrition (CPN) and determine the relationship with type of canalized route.

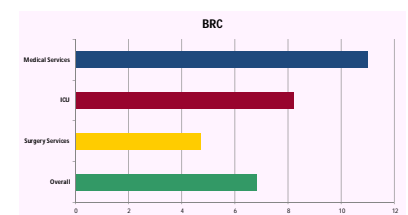
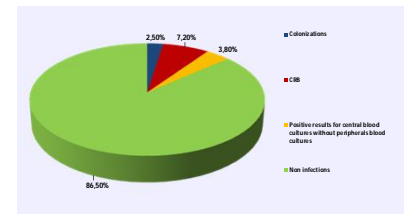


MATERIALS AND METHODS

Prospective study conducted in a third level Hospital from 01/01/16 to 06/30/19. All admitted patients who received CPN were included. Data registered: Hospitalization Unit, type of canalized route, days with CVC and isolated microorganisms in case of infections. The infection rate used was CRB/1,000 days of CVC.

RESULTS

During the study period 525 CVC were analyzed in 428 patients: 76.6% inserted in operation room, 18.3% in the Intensive Care Unit (ICU) and 5.1% in hospitalization room. The most common access was jugular vein (57.3%), followed by subclavian vein (34.5%), peripherally inserted central catheter (PICC) (7.6%) and femoral vein (0.6%). 143 CVC (27.2%) were removed for suspected BSIs, of which 50.3% were negative. There were 13 colonizations (2.5% of the total), 38 CRB (7.2%), and 20 positive results for central blood cultures without peripherals blood cultures (3.8%), so it was not possible to determine whether it was colonization or CRB. 54.9% of the infected CVC were jugular, 35.2% subclavian and 9.9% PICC. Overall CRB rate was 6.8. Results by Services were: 4.7 in Surgery Services, 8.2 in ICU and 11.0 in Medical Services. Staphylococcus was the most common isolate (80.6%) followed by E.coli and other Gram-negative bacteria (9.7%). There were 2 infections caused by Acinetobacter (2.8%) and 3 caused by Candida (4.2%).



CONCLUSION AND RELEVANCE

Most of CVC has been inserted in operation room and the most common access was jugular vein. Half of removed CVC for suspected BSIs were negative. The CRB rate in our Center could be underestimated because peripheral blood cultures have not been extracted in a high number of cases. The microorganisms isolated in this study are similar to those found in the existing literature.

REFERENCES AND/OR ACKNOWLEDGEMENTS

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