LAG TIME IN ANTIBIOTIC ADMINISTRATION IN PATIENTS WITH SIGNS OF SIRS/SEPSIS AND ITS IMPACT ON MORTALITY AND LENGTH OF ICU STAY

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ABSTRACT

Background

Severe sepsis and septic shock are one of the leading causes for hospitalisation and in-hospital mortality. The surviving sepsis guidelines campaign[5] developed in 2004 incorporated evidence based guidelines to reduce mortality from sepsis and septic shock. These include initiation of broad spectrum antimicrobials within 1 hr of recognition of sepsis. We set out to assess the compliance to time of antimicrobial administration guidelines in our hospital and whether the choice of antimicrobials were appropriate, its impact on mortality and length of stay in hospital.

Materials and Methods

The study was a retrospective observational study done in Columbia Asia Hospital, Bangalore. The study involved 127 patients admitted to ER/ICU with signs of SIRS/SEPSIS between January 2010 and December 2010. 52 patients were excluded from study since they had received antibiotics before admission. 75 patients were included in the study.

Result

Median time of antibiotic administration in our patients was 2.3 hours. Though mortality and length of stay was higher in the group which received antibiotics after 2 hours there was no statistical significance. In our study 23 (30%) of the patients got inappropriate antibiotics. Of the 12 deaths, 6 were in patients who received inappropriate antibiotics. There was no statistical significance.

Conclusion

Our study showed a lag time of 2.3 hours for antibiotic administration in sepsis patients. Though numbers are small to draw any definitive conclusions, mortality and length of stay can be significantly reduced, if the antibiotics are administered at the earliest after the diagnosis of sepsis is made.

KEYWORDS: Severe Sepsis and septic Shock are one of the Leading Causes for Hospitalisation and In-Hospital Mortality