INTRODUCTION

The prevention of surgical site infection (SSI) remains a focus of attention because wound infections continue to be a major source of expense, morbidity, and even mortality[(1)].

wound infection is the deposition and multiplication of microorganisms in tissue with an associated host reaction[(2)]. Surgical site infections are classified as follows : superficial incisional SSI , deep incisional SSI and organ/space SSI[(3)].

The presence of a micro-organism within the margins of a wound does not indicate that wound infection is inevitable[(4)]. The potential for infection depends on a number of patient variables such as the state of hydration, nutrition and existing medical conditions as well as extrinsic factors, for example related to pre-, intra-, and post-operative care. This often makes it difficult to predict which wounds will become infected[(5)].

Staphylococcus aureus, coagulase-negative staphylococci , Enterococcus spp., and Escherichia coli remain the most frequently isolated pathogens[(6)].

The prevalence of methicillin-resistant Staphylococcus aureus (MRSA) has increased dramatically since it was first described in the 1960s[(7)].

Alarmingly, a rising vancomycin minimum inhibitory concentration (MIC) in the hospital-acquired strain is well documented, confirming the emergence of vancomycin-intermediate-resistant S. aureus (VISA) and vancomycin resistant S. aureus (VRSA) species[(8)].

Internationally, the frequency of surgical site infections is difficult to monitor because criteria for diagnosis might not be standardized[9]. SSIs are among the most common hospital acquired infections comprising 14 -16 % of inpatient infections[10].

Postoperative wound infections present as erythema, tenderness, edema, and occasionally drainage. The wound is often soft or fluctuant at the site of the infection, which is a departure from the firmness of the healing ridge present elsewhere in the wound[11].

The use of antibiotics is a milestone in the effort to prevent wound infection. The concept of prophylactic antibiotics was established in the 1960s when experimental data established that antibiotics had to be in the circulatory system at a high enough dose at the time of incision to be effective[12].

General agreement exists that prophylactic antibiotics are indicated for clean-contaminated and contaminated wounds. Antibiotics for dirty wounds are part of the treatment because infection is already established. Clean procedures might be an issue of debate. No doubt exists regarding the use of prophylactic antibiotics in clean procedures in which prosthetic devices are inserted because infection in these cases would be disastrous for the patient[13, 14].

It is important to treat the patient as a whole and not the infection alone, so management strategies must be based on data derived from an holistic assessment of the needs of the individual[15]. Treatment of SSI nearly always involves opening the incision and establishing adequate drainage[16 ,17].