

Use of prophylactic antibiotics in preventing Surgical Site Infection (SSI) wound infection

Use of prophylactic antibiotic is common in developed countries which can be single dose or can be 2 doses.

The ideal time of giving prophylactic antibiotics is just before surgery. Main objective of prophylactic antibiotic is to increase blood level of antibiotic at the site of surgery to prevent colonization by dermal microorganism and secondary infection.¹

Antibiotics prophylaxis guideline clearly mentioned indication, type of antibiotics and route of antibiotics and time at which prophylactic antibiotics should be given. One school of thought advocates single dose of antibiotics should be administered just before making an incision.²

Various studies suggest that use of prophylactic antibiotics decrease surgical site infections (SSI). Bidur KC, Regmi R, Agrawal et al, in their study, showed no benefit of prophylactic antibiotics in patients undergoing surgery.³

Celdran A, Frieyro O et al,⁴ and Maheshwari MK, Singh R et al,⁵ in their studies clearly shown the benefit of using prophylactic antibiotics is beneficial and prevents wound infection in post-operation prophylactic.

We strongly recommend use of prophylactic antibiotic to prevent surgical site infection. It has been proven that single dose of prophylactic antibiotics within one hour before incision is beneficial in preventing SSI, and dose can be repeated if the surgery prolongs beyond 4 hour or their excessive blood loss during surgery.

The role of prophylactic antibiotics is essential while we are using synthetic material, like use of Mesh during hernia repair, using implants in

Orthopaedics, Cardiac surgery and other field of surgery. Any where there is use of implant prophylactic antibiotic plays an important role in preventing wound infection as well as deeper infections. The most commonly used antibiotics for prophylaxis is cephalosporin group, we routinely use cefazolic 1gm, half an hour before surgery.

Amoxicillin-clavulanic acid is also been used. Sharma A, Khan RU et al, recommend the use of augmentin as prophylactic antibiotic in Lichtenstein hernia repair.⁶

We are routinely using cefazolic as prophylactic antibiotic and we are using Topical Gentamycin in Mesh hernia repair.

Duray Seker, Gaye Ebru Seker et al,⁷ in their prospective randomized clinical trial. Highly recommend the use of topical antibiotic prophylaxis in Lichtenstein hernia repair.

We are routinely using prophylactic antibiotic and topical gentamycin in hernia surgery using mesh.

Prophylactic antibiotic is very useful in preventing surgical site infection.

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