

To study the need of antibiotic prophylaxis in elective clean soft tissue surgeries of short duration(less than half hour)

Presented by

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INTRODUCTION

Surgical Site Infection

Commonest complication with any surgical procedure.

Adverse Predisposing factors for Surgical Site Infection:

Type of surgery -

Implant/Prosthesis insertion.

Prolonged surgery - more than 2 hrs

Poor surgical technique

Immunocompromized status

CLEAN

Free from microorganism
heart surgery
A1 pully release

CLEAN CONTAMINATED

Non significant contamination
Less than 6 hr elapse until medical care
biliary and gastric surgeries

SURGICAL WOUND CLASSIFICATION

CONTAMINATED

Without local infection
More than 6 hr elapse until medical care
Colon surgeries

INFECTED

Intense inflammatory reaction
Frank infectious process
Appendicitis

AIM

To find the incidence of Surgical Site Infection in short duration elective clean soft tissue surgeries with or without antibiotic prophylaxis.

HYPOTHESIS

Prophylactic antibiotics have no impact on incidence of Surgical Site Infection in clean elective soft tissue surgery of short duration due to low risk of intra operative contamination in such surgeries.

ROLE OF ANTIBIOTIC PROPHYLAXIS

- ❑ To achieve serum and tissue drug levels that exceed the minimum inhibitory concentration for the organisms likely to inadvertently contaminate the operative field
- ❑ Idea is to eliminate any inadvertent contamination which takes place during course of surgery despite best precautions.

MATERIALS & METHODS

Study design	Prospective comparative randomized study
Duration of study	OCTOBER 2019 – APRIL 2021
Sample size	100 cases
Place of study	Department of Orthopedics ESI-PGIMS, New Delhi

Patients under inclusion criteria i.e. Any clean elective surgical procedure of short duration (less than half hour) enrolled for study



Routine pre anaesthetic blood investigations



Block Randomization with Sealed envelope system



GROUP A (patients with antibiotic group)

GROUP B (without antibiotic group)



Operated by single surgeon



Follow up till 1 month viz. day 3,7,14 and 30

RESULTS

We have done 50 cases (In 25 cases we have given antibiotic and in 25 cases antibiotic not given) and we found that not a single one of them developed SSI. However we feel that large sample size will be needed to conclusively prove our hypothesis.

CONCLUSIONS

- ❑ This is unnecessary to use antibiotics in all surgical procedures .
- ❑ There should be stratification of use of antibiotic prophylaxis i.e. antibiotic prophylaxis for procedures involving placement of implants/prosthesis on one end of spectrum but no antibiotic prophylaxis for clean elective soft tissue surgeries of short duration at other end of spectrum.
- ❑ There must be a delicate balance between the use of antimicrobial agents to prevent infection and the overuse of antimicrobial agents, which are associated with the development of multidrug-resistant organisms.