

RANDOMIZED CONTROLLED TRIAL: PREOPERATIVE INTRA-INCISIONAL INFILTRATION OF ANTIBIOTC AT PFANNENSTIEL SITE VERSUS INTRAVENOUS PROPHYLACTIC ANTIBIOTIC FOR PREVENTION OF SURGICAL WOUND INFECTION

❑ INTRODUCTION

- Surgical antibiotic prophylaxis (SAP) is a short course of antibiotic given just before the surgery to prevent post-operative surgical site infections (SSIs).
- Initially the antibiotics were only used post – operatively for the treatment of already established SSI. Later the concept of antibiotic prophylaxis was introduced.
- One method of preoperative antibiotic prophylaxis is via intravenous route. When antibiotic is given intravenously , it gets uniformly distributed in systemic pool followed by distribution in peripheral pool, which results in less concentration of antibiotic at the incision site during surgery.
- Other method of preoperative antibiotic prophylaxis is via intra incisional route which ensures high concentration of antibiotic at the incision site at the time of surgery.

❑ METHODOLOGY

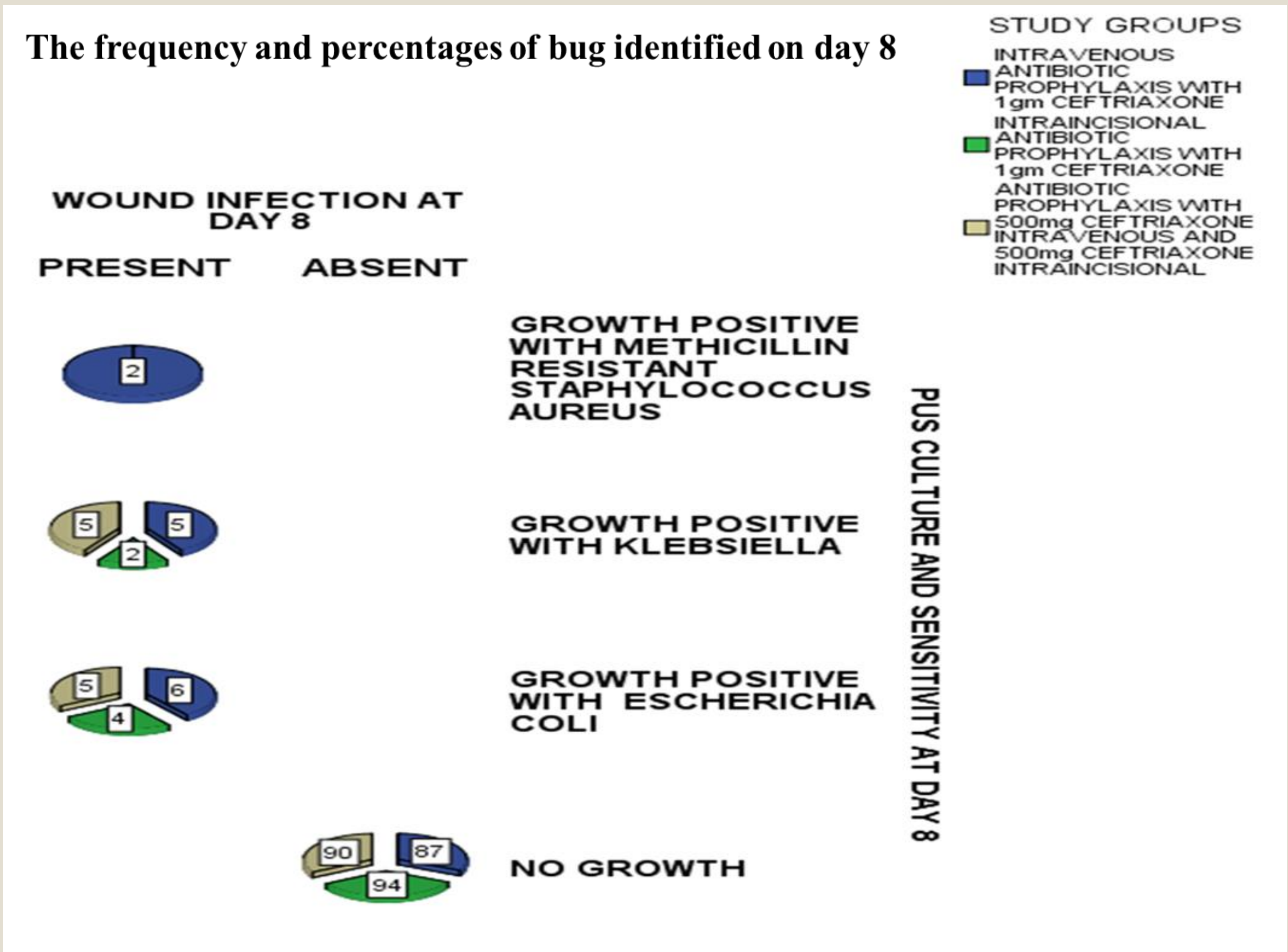
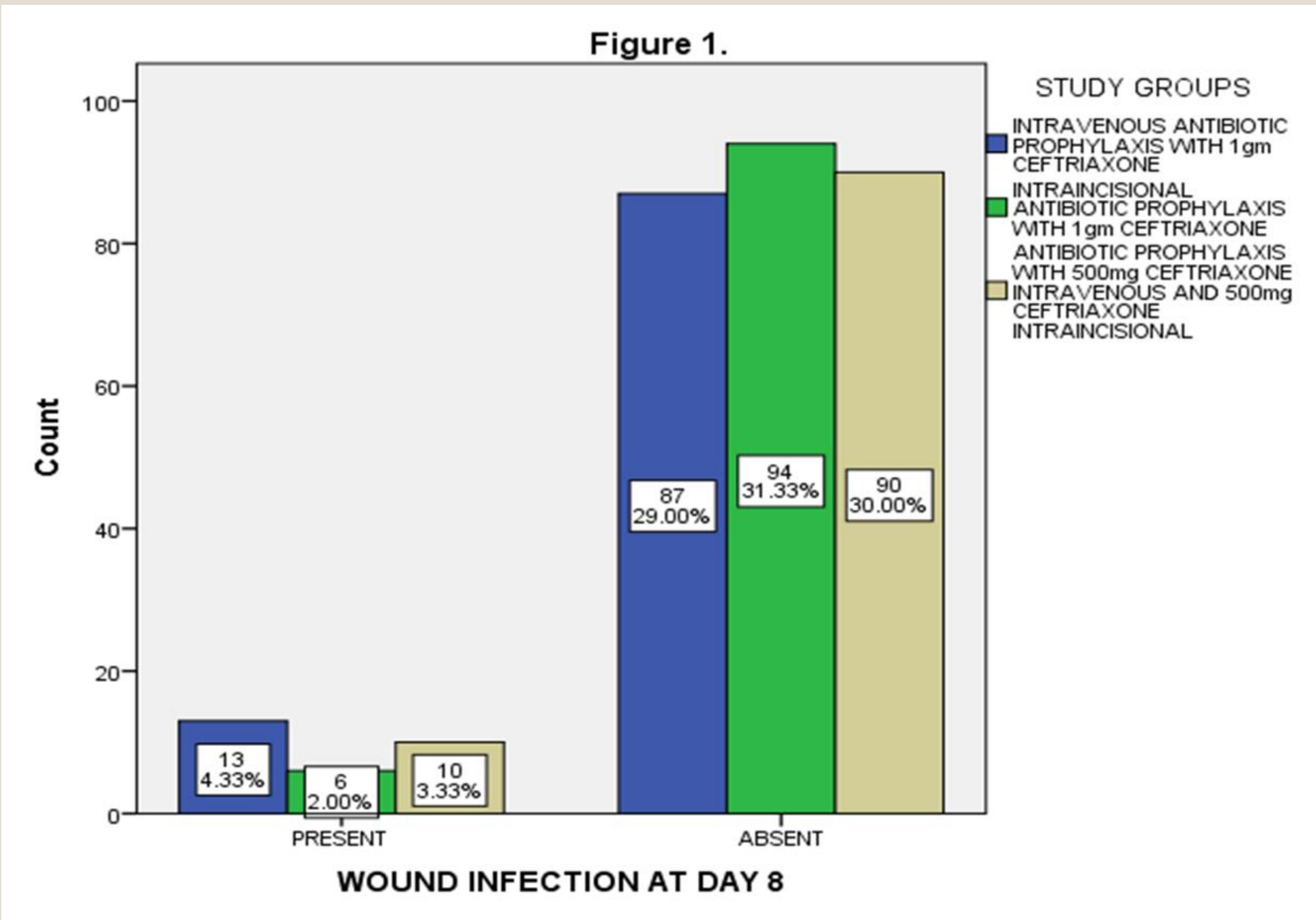
- Randomized Controlled Prospective Study with sample size of 300 conducted at PIMS.
- The 300 selected women were divided equally into 3 groups randomly. Each group contained 100 candidates.
- **GROUP A:** Antibiotic Prophylaxis will be given by 1 gram of injection ceftriaxone (diluted in 10 ml of distilled water), administered intravenously 20 minutes prior to surgical incision.
- **GROUP B :** Antibiotic prophylaxis will be given by 1 gram of injection ceftriaxone (diluted in 10 ml distilled water), infiltrated along the skin and subcutaneous tissues in the proposed line of incision 20 minutes before surgical incision.
- **GROUP C:** Antibiotic prophylaxis will be given by both systemic and intra-incisional infiltration 20 minutes prior the incision. 1 gram of injection ceftriaxone diluted in 10 ml distilled water. 5ml will be administered intravenously and 5ml will be infiltrated along Pfannenstiel site.

❑ OUTCOME

- The Study outcome was assessed in terms of wound infection on day 8 of surgery.

❑ CONCLUSION

- Pre Operative intraincisional infiltration of antibiotic at Pfannenstiel site has better efficacy in reducing SSI as compared to combined and intravenous group with same dose of antibiotic



Study groups			Wound infection at day 8		Total
			Present	Absent	
Intravenous antibiotic prophylaxis with 1gm ceftriaxone	Age	20-25 years	Count	0	21
		26-30 years	Count	10	41
		31-35 years	Count	1	24
		36-40 years	Count	2	1
	Total	Count	13	87	100
		%	13.0%	87.0%	100.0%
Intra-incisional antibiotic prophylaxis with 1gm ceftriaxone	Age	20-25 years	Count	0	27
		26-30 years	Count	5	36
		31-35 years	Count	0	27
		36-40 years	Count	1	4
	Total	Count	6	94	100
		%	6.0%	94.0%	100.0%
Antibiotic prophylaxis with 500mg ceftriaxone intravenous and 500mg ceftriaxone intra-incisional	Age	20-25 years	Count	1	29
		26-30 years	Count	3	36
		31-35 years	Count	3	22
		36-40 years	Count	3	3
	Total	Count	10	90	100
		%	10.0%	90.0%	100.0%

The frequencies of infection in each study groups as per age on day 8