

## Chapter 6

### Results

#### 6.1 General Data

The result of single dose cefazolin used as prophylactic antibiotics to prevent infectious morbidity in simple total abdominal hysterectomy was presented. There were 180 patients recruited in this research between the First of April 1996 to 31 March 1997. The eligible patients were scheduled for simple total abdominal hysterectomy for benign indication. They were randomized in to two groups. First group was received placebo intravenous injection prior to perform operation defined as non-prophylaxis group. Another group was received one gram of cefazolin defined as antibiotic prophylaxis group.

The factors that might be affected the outcome were the status of the patients before operation, the difficulty of surgery and the level of experience of the surgeon. The status of the patients before operation were

age and menstrual status. The difficulty of surgery were operative diagnosis, operative time, amount of blood loss during operation. All of these factors were used as covariable to adjust the outcome of interest, infection.

The general data of the patients in both groups were shown in table 6.1. There were menstrual status, age volume of blood loss , operative time.

**Table 6.1 : General Data**

	Non Prophylaxis	Antibiotic Prophylaxis
Pre-menopause	46 (51.11%)	55 (61.11%)
Post-menopause	44 (48.89%)	35 (38.89%)
Age	44.58 SD 5.27	42.67 SD 7.97
Volume (CC.)	547.17 SD 121.17	558.05 SD 131.60
Operative Time (min.)	102.76 SD 18.077	101.31 SD 16.285

## 6.2 Indication for surgery

Another factor that affected post operative infection beside antibiotic prophylaxis was indication for surgery. All patients recruited in this research were scheduled for simple abdominal hysterectomy. There were ten indications diagnosed before recruitment. The patients were randomized in to two group regardless of their indication for surgery. The indications were shown in table 6.2. The majority of indications were myoma uteri. Most of the symptom of myoma uteri were palpable lower abdominal mass and abnormal uterine bleeding. Some of their symptom was abdominal pain. The second most common indication was benign ovarian tumor and the third were recurrent abnormal uterine bleeding and endometriosis.

Table 6.2 : Indication for surgery

	Non Prophylaxis	Antibiotic Prophylaxis	Total
Myoma Uteri	39	33	72 (40%)
Recurrent DUB	6	12	18 (10%)
Benign Ovarian Tumor	8	12	20 (11%)
Chronic Pelvic Pain	4	6	10 (6%)
Molar Pregnancy	3	3	6 (3%)
Endometriosis	10	8	18 (10%)
Endometrial Polyp	7	5	12 (8%)
Chronic Ectopic Pregnancy	1	3	4 (2%)
Mental Retardation	1	5	6 (3%)
Benign cervix Lesion	11	3	14 (7%)
Total	90	90	180 (100%)

### 6.3 Surgeon Skill

The factors influenced result of the operation were not only the status of the patient and the difficulty of the surgery. The difficulty of the surgery

were factors shown above. Another factor that must influenced the result of surgery was the surgeon skill. The research was conducted in Bhumibol Aduladej Hospital. The research protocol was done in the real situation in the hospital working. Then there were ten surgeons performed simple abdominal hysterectomy in this protocol. The researcher defined the level of surgeon skill into three levels. Senior surgeon defined as surgeon who had more than ten years experience in performing the operation. Junior surgeon defined as 1-10 year experience and residents were surgeon who were in training programme. Table 6.3 show the categories of the surgeons who performed operation compared between two groups of antibiotic prophylaxis.

**Table 6.3 : Surgeon Skill**

	Non Prophylaxis	Prophylaxis	Total
Senior Surgeon	19	23	42 (24%)
Junior surgeon	41	48	89 (48%)
Resident Surgeon	30	19	49 (28%)
Total	90	90	180 (100%)

#### 6.4 Operative Outcome

##### 6.4.1 Causes of Infectious Morbidity

Results of the surgery were shown. The infectious morbidity was the main outcome of interest. It composed of four categories of infection result from surgery. The prevalence of infection occurred post operation was 10.55% and the detail were shown in table 6.4.1. The most common cause of infectious morbidity was pelvic cellulitis. Three of these causes except vaginal cuff abscess had fever according to its criteria for diagnosis.

**Table 6.4.1 : Causes of Infectious Morbidity**

	Non Prophylaxis	Prophylaxis	Total
Abdominal wound	1	0	1 (5%)
Pelvic cellulitis	5	3	8 (42%)
Pelvic Abscess and Hematoma	3	0	3 (16%)
Vaginal Cuff Abscess	4	3	7 (37%)
Total	13	6	19 (100%)

#### 6.4.2 Infectious Morbidity

Table 6.4.2 show post operative infectious morbidity, the main outcome of this research, compared between antibiotic prophylaxis group and non-prophylaxis group. There were no significant difference between two groups. The researcher used Mantel-Haenszel Chi-squares to adjust the confounder.

Table 6.4.2 : Infectious Morbidity

	Infectious Morbid.		RR	95%CI RR	P-VALUE
	YES	NO			
Non Prophylaxis	13	77	2.17	0.86 - 5.45	0.0895
Prophylaxis	6	84			

#### 6.4.3 Febrile Morbidity

The secondary outcome of this research was febrile morbidity. The patients who met the febrile morbidity criteria were counted. The prevalence of febrile morbidity were 16.11%. Table 6.4.3 show the

comparison of febrile morbidity between two group of antibiotic prophylaxis usage. There were significant difference between two groups. The usage of antibiotic prophylaxis decreased febrile morbidity significantly when compared to non-prophylaxis group

**Table 6.4.3 : Febrile Morbidity**

	Febrile Morbid.		RR	95%CI RR	P-VALUE
	YES	NO			
Non Prophylaxis	22	68	3.14	1.41-6.99	0.0029
Prophylaxis	7	83			

#### 6.4.4 Other Causes of infection

The prevalence of febrile morbidity was excess the prevalence of infectious morbidity. So there were other causes of fever. The researcher found other two causes of fever were respiratory tract infection and urinary tract infection. There were some cases that the cause of febrile morbidity could not be identified. Table 6.4.4 show the prevalence of infection that cause



fever beside the infectious morbidity. The respiratory system was diagnosed when the patients had symptom such as sore throat, productive cough. The physical examination show sign of infection such as fever, injected pharynx. Chest x-ray was performed in every cases. Pneumonia was diagnosed in case of chest x-ray positive only. Others were diagnosed as upper respiratory tract infection. The urinary tract infection as a cause of infection was diagnosed when patients had febrile morbidity and symptom of urinary tract infection. The symptom of urinary tract infection included lower abdominal pain, dysuria, pain at costovertebral angle and fever. Acute pyelonephritis was diagnosed in case of urine culture positive only. There were some cases diagnosed as unknown cause of febrile morbidity. All of these cases had fever but had no definite criteria to any other causes of infection.

**Table 6.4.4 : Other Causes of Infection**

	Non Prophylaxis	Prophylaxis	Total
Respiratory system	3	2	5 (29%)
Urinary system	4	0	4 (24%)
Unknown cause	6	2	8 (47%)
Total	13	4	17 (100%)

**6.4.5 Bad Outcome**

When considered the efficacy of antibiotic prophylaxis that intended to offer better condition to the patients. Researcher defined bad outcome to detect the efficacy of antibiotic prophylaxis compared between non-prophylaxis and antibiotic prophylaxis group. Table 6.4.5 show that there were significant difference between two groups. The antibiotic prophylaxis decreased post operative bad outcome significantly when compared with non-prophylaxis group.

	Bad Outcome		RR	95%CI RR	P-VALUE
	YES	NO			
Non Prophylaxis	26	64	2.60	1.33 - 5.07	0.0029
Prophylaxis	10	80			

สถาบันวิทยบริการ  
จุฬาลงกรณ์มหาวิทยาลัย