



CHAPTER 1

RATIONALE AND BACKGROUND

Total abdominal hysterectomy is a common operation in gynecology. There are approximately 600,000 to 750,000 hysterectomies performed annually in the United State. Two-third of these procedures are performed abdominally⁽¹⁾. There are over 200 abdominal hysterectomies performed annually in Bhumibol Adulyadej Hospital. The most common complication associated with abdominal hysterectomy is infection.

Postoperative infection, as a complication of surgical procedures in gynecology, has long been a focus of clinical concern. Gynecologists are confronted with the situation that, during surgery, the operative field is contaminated by bacteria from the lower genital tract. Pelvic operations result in exposure of sterile pelvic and abdominal cavities to the endogenous aerobic and anaerobic bacteria, gram-positive as well as gram-negative from the

vagina. This results in potential for colonization and adherence of virulent bacteria, thus establishing appropriate conditions for infection. With the presence of blood, serum, necrotic tissue, and sutured material, the environments are highly favorable for the growth of bacteria.

Prophylactic antibiotics are well accepted in emergency cesarean delivery. In vaginal hysterectomy, prophylactic antibiotics are indicated routinely as they decrease the frequency and severity of infection. Abdominal hysterectomy is a common operation in gynecology. Infection after abdominal hysterectomy may be less frequent than after vaginal hysterectomy⁽²⁾. Still the use of prophylactic antibiotics are controversial in abdominal hysterectomy, because of major gynecological textbooks published in the United States, only Droegemuller's textbook considers antibiotic prophylaxis for abdominal hysterectomy to be standard care on the basis of cost benefit analysis⁽³⁾. In the Department of Obstetrics and Gynecology, Bhumibol Adulyadej Hospital, prophylactic antibiotics are routinely used in emergency

cesarean sections and almost all cases of vaginal hysterectomy, but it is not used in abdominal hysterectomy. Even though the rate of febrile morbidity is as high as 25-30%, the infectious morbidity in term of operative site infection, such as abdominal wound infection, pelvic cellulitis, pelvic abscess and infectious hematoma, vaginal cuff abscess occurred in only 10-15% of patients⁽⁴⁾. The operative site infection can be easily monitored and not too serious to treat with combination antibiotics. However if single dose prophylactic antibiotics are effective in preventing these infectious morbidity, it will be better for the patients.

The aim of this study is to find the efficacy of a reasonable antibiotics, which can provide prevention post simple abdominal hysterectomy infection, which has a low toxicity, and inexpensive.