Prophylactic Versus Therapeutic Antibiotic Therapy Following Appendicectomy

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Abstract

Background: In the first 4 hours after a breach in an epithelial surface and underlying connective tissues made during surgery or trauma, there is a delay before host defences can become mobilised through acute inflammatory, humeral and cellular processes. This period is called the ‘decisive period’ and it is during these first 4 hours after incision that bacterial colonisation and established infection can begin. It is logical that prophylactic antibiotics will be most effective during this time. Following closure of the wound, local intravascular coagulation and the events of early inflammation that initiate wound healing seal its environment: this may explain why the postoperative administration of antibiotics is ineffective in preventing wound infection.

Objective: To investigate the benefit of prolonged antibiotic therapy following appendicectomy of uncomplicated appendicitis in preventing surgical site infection.

Patients and Methods: Two hundred patients who undergone appendicectomy had been reviewed prospectively over a period of one year and eight months (January 2009-Augest 2010) in the surgical ward in Baquba teaching hospital, reviewed for the need for prolonged antibiotic therapy in decreasing the incidence of surgical site infection. All of the patients have uncomplicated appendicitis (non-perforated). The patients are divided into two groups. In group 1 the patients given single dose of antibiotic (Cefazolin) at the time of induction of anesthesia and only two doses postoperatively. In group 2, the patients did not receive preoperative antibiotic but given prolonged antibiotic cover first parenteral then enteral till the time of removal of stitches. The two groups are examined for the development of surgical site infection.

Results: No significant difference in the incidence of occurrence of surgical site infection between the two groups.

Conclusion: Prolonged postoperative antibiotic therapy is of no value in preventing surgical site infection in patient underwent appendicectomy for uncomplicated appendicitis.

Key words: Appendicitis, Surgical site infection.

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