

Original Research Article

Knowledge and awareness of the nurses and general physicians regarding postoperative gynaecological infections

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Abstract: Despite advances in operative techniques and a better understanding of the pathogenesis of wound infection and wound healing, post-operative wound infection (surgical site infections) continue to be a major source of morbidity and mortality for patients undergoing operative procedures. The present study was done to study the knowledge and awareness of the nursing staff and the general medical practitioners regarding the postsurgical gynaecological infections. The study was included of 102 nursing staff and 87 general physicians of medical college and nearby multispecialty hospitals. The medical practitioners with any specialty degree were excluded. The questionnaires were included of knowledge and awareness of the nurses regarding postsurgical wound healing, infection, care of the wound, etiology for the wound infections, precautions to be taken and complications. The study had shown that nursing staff were having less knowledge and awareness regarding various aspects of the postsurgical gynaecological infections. There is need to increase the knowledge and awareness of the nursing staff and general medical practitioners through seminars, continuing education programme or awareness programme.

Keywords: Postoperative infections, nursing staff, Gynaecological infections

INTRODUCTION:

Pregnant women are at risk of contamination during labor and delivery; most infections of the female pelvic organs occur when normal flora of the female genital or gastrointestinal tract contaminate the normally sterile amniotic fluid and uterus. These bacteria may become pathogenic, predominantly in devitalized tissue. Bacterial contaminations in pregnant women may also originate from infections of bacteria during childbirth or surgery or from hematogenous spread [1, 2].

Surgical site infections can disturb body tissues, cavities, or organs operated in surgery, and diagnosis is based on clinical and laboratory criteria. These infections can appear within 30 days after a surgical procedure or even up to a year with prosthesis implantation [3-5]. Such types of infections are the second most common type of opposing events occurring in hospitalized patients. The wound infection takes place when microorganisms from the skin or atmosphere enter the incision that the surgeon makes through the skin in order to carry out the procedure.

These infections can develop at any period from two to three days after surgery until the wound has healed [6, 7]. The present study was done to study the knowledge and awareness of the nursing staff and the general medical practitioners regarding the postsurgical gynaecological infections.

MATERIALS AND METHODS:

The study was included of 102 nursing staff and 87 general physicians of medical college and nearby multispecialty hospitals. The medical practitioners with any specialty degree were excluded. The study was done with the help of specially prepared 15 questionnaires which were authenticated by doing pilot study. The questionnaires were included of knowledge and awareness of the nurses regarding postsurgical wound healing, infection, care of the wound, etiology for the wound infections, precautions to be taken and complications. Approval of the ethical committee was taken before start of the study and informed consent of all participants was taken. The questionnaires were distributed to all the participants and responses collected. The statistical comparison was

done with the help of SPSS statistics version 17 using students t test.

RESULTS:

The study had shown that nursing staff were having less knowledge and awareness regarding various

aspects of the postsurgical gynaecological infections than that of the general medical practitioners and the difference was found to be statistically significant. ($P < 0.001$, Students t test, Table 1) The general medical practitioners also need to encourage regarding the recent advances and knowledge.

Table 1: Comparison of the scores of the nursing staff and general medical practitioners about the knowledge and awareness of the postoperative gynaecological infections

| Group | Number of participants | Mean SD | P value |
|-----------------------|------------------------|---------|-------------|
| Nursing staff | 102 | 8.9 | $P < 0.001$ |
| General practitioners | 87 | 10.3 | |

DISCUSSION:

Surgical site infections have the third maximum incidence among the types of infections that affect hospitalized patients, comprising 14% to 16% of total infections. These infections are classified as superficial incisional, deep incisional, and organ or space. The superficial type affects only the skin or subcutaneous tissue of the incision site and the deep type involves deep structures of the wall, fascia, and muscle layer. The third type affects any part of the anatomy that is opened or manipulated during the surgical procedure, with the exception of a wall incision [3, 4].

In gynaecology sections, one of the utmost common infections is the surgical site infection, i.e. infection to the location of surgical incision. The proportion of infections in gynaecological departments ranges from 0.89% to 1.6%, and the duration of the treating patients with infections is twice as long as treating patients. The risk of surgical site infections is predisposed by factors associated with a patient, procedures and medical care as well as hospital environment. Danger factors for surgical site infections include the degree of sanitation of the operating field, the length of treatment and the patient's situation. The risk of contracting a surgical site infection also occurs in association with the method of operation. Emergency procedures are exposed to the highest risk, as there is usually not adequate time to remove the cause of contamination [8].

A related component of the operating site infection is the time that has passed after the surgery. The most commonly well-known etiological factors are: *E. coli*, *Enterobacter*, *Klebsiella*, *Gardnerella*, *Bacteroides fragilis*, *Urea plasma* and *Enterococcus* [8]. Medical forms of operative site contaminations include: superficial infections of the surgical site (incision location) and deep/organic infection of the surgical site, including lesser pelvis infections. Superficial infections show at the incision location and involve the skin and subcutaneous tissue [8]. The indicators of surgical site infections can be divided into local and general ones.

Local infections are the infections of skin and subcutaneous tissue and their symptoms are: pain (dolor), the reddening of wound edges (rubor), increased tension, oedema and dehiscence of the wound edges (tumor), drainage (usually pus), increased temperature (calor) as well as fever occurring between 4 and 8 days after the surgery [8, 9]. The present study had shown that the nursing staff and the general medical practitioners had less knowledge and awareness of the postoperative infections.

CONCLUSION:

The nursing staff and general medical practitioners have less knowledge and awareness of the postoperative gynaecological care and infections. There is need to increase the knowledge and awareness of the nursing staff and general medical practitioners through seminars, continuing education programme or awareness programme.

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