

Factors Affecting the Incidence of Surgical Injury Infection

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ABSTRACT

This study analyzes the factors that influence the incidence of surgical wound infections. Wound healing can be seen from the presence or absence of infection in the wound with the characteristics of heat, dolor, rubor, and tumor. There are several factors that can affect the risk of wound infection. The first factor is the virulence of microorganisms that cause contamination is the level of pathogenicity as measured by the number of organisms needed to cause disease at a certain period of time, causing contamination. The second factor is contamination of the wound if the wound is contaminated with bacteria. The third factor is antibiotics for prophylaxis, namely to reduce the incidence of infection, and host resistance to infections caused by age. The fourth factor is chronic infection that already exists. Post-caesarean wound care is an evacuation of all coagulation, seroma and treating infections that cause it.

Keywords: post-caesarean wound, incidence of surgical wound, factor, pathogenicity

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Submitted: 25-04-2020

Revision: 20-05-2020

Accepted Date: 10-06-2020

DOI: 10.31838/jcdr.2020.11.02.10

INTRODUCTION

The delivery of quality health services is needed to improve public health and is carried out responsibly, that is a sense of responsibility towards health services needed by the community. Safe is a health service that can create a situation, especially the problem of the location of health services that is easily reached and the costs in accordance with the economic capacity of the community, and quality is a health service carried out at the level of delivery (Nasirin & Asrina, 2020). The benefits of organizing this health service are so that the community can obtain health care and protection in meeting the basic health needs provided to everyone. This is useful for people who need health services. Injury is a state of loss of part of the body's tissues due to pathological processes originating from internal or external & regarding certain organs. According to Morison (2004) injury is the continuity of body tissues that disrupt normal cellular processes. Hidayat (2006) states that the wound is a condition of the continuation of the body tissue continuity, which can cause disruption of bodily functions so that it can interfere with daily activities. Disruption of the normal integrity of the skin & underlying tissues that occur suddenly or intentionally, closed or open, clean or contaminated, superficial or deep so that it can interfere with daily activities. Injuries in cesarean patients occur due to labor and surgery so that the risk of infection felt by the patient will greatly affect the patient's comfort when wound care (Nasirin, 2020). According to Johnson & Taylor (2004) treatment of post-caesarean wounds is cleaning and dressing the wound. The decision to bandage the wound is an indicated action. The function of wound cleansing is to clean the wound debris and remove the peeling tissue or tissue necrosis. Wound management aims to improve the healing process of the tissue and also to prevent infection. Another case with Potter & Perry (2005) patients with post-surgical wounds should be given wound care immediately by cleaning to prevent infection during wound care. Therefore, infections experienced by patients during wound care can be overcome by isolating potential sources of infection, nurses and other caregivers do effective hand washing, aseptic wound dressing techniques, clean and

effectively disinfect the physical environment that helps patients to speed up the healing process the wound.

This study analyzes the factors that influence the incidence of surgical wound infections. This study was conducted to identify the factors that influence wound healing. The study was conducted with descriptive and qualitative methods. The approach used is library research based on the identification of factors revealed from various previous studies on the influential factors [there is wound healing after caesarean section surgery. For research design, this study uses a systematic design review, which emphasizes focused studies in one particular area of health in order to get clear conclusions about a subject that is a research question.

C-SECTION

Cesarean section is an incision in the uterine wall through the abdominal wall. According to Oxorn & William (2010) a cesarean section is a surgical operation on the abdominal wall and uterus. Seffah (2005) added that a cesarean section is an incision through an incision made in the abdominal wall and uterus. This procedure is considered as major abdominal surgery, which is making an incision in the abdominal wall and uterus. Cesarean section occurs due to an imbalance in the size of the baby's head and pelvis, the location of the breech baby, the cervix closed placenta (placenta previa), twins, the placenta comes out too early, too much contraction and pregnancy in the elderly mother. Post cesarean section is the period after the incision in the abdominal wall and uterus, in an unconscious or semi-conscious state in the recovery room. The importance of care after the postoperative cesarean section is a treatment that includes the study of vital signs namely temperature measurement, pulse assessment, blood pressure measurement and respiratory assessment (Ebnesahidi & Mohseni, 2008). Meanwhile, Rasjidi (2009) states that post-caesarean section care is patient observation until the patient is able to maintain airway patency and cardiovascular stability and be able to communicate. After recovering from anesthesia, the patient's vital signs (awareness, blood pressure, breath frequency, temperature, pain, urine

production) need to be observed every half hour in the first two hours. If the vital signs are stable, observation is continued every hour. Bandage wounds were changed after the first 24 hours and at the same time assessed the state of the injured operation. The above treatment has an impact on the patient's condition while in the recovery room.

WOUNDS AND HEALING POST-CAESAREAN WOUNDS

The process of wound care patients often experience the risk of infection which can slow the wound healing process.

According to Puspitasari & Sumarsih (2011) the process of wound healing is influenced by various factors one of which is personal hygiene. Because germs can enter through the wound at any time when personal hygiene is lacking. Meanwhile, Johnson & Taylor (2004) stated that one of the factors that influence the wound healing process is infection. Infection is a disorder that causes increased inflammation and necrosis that inhibits wound healing. Factors that influence the incidence of wound infection.

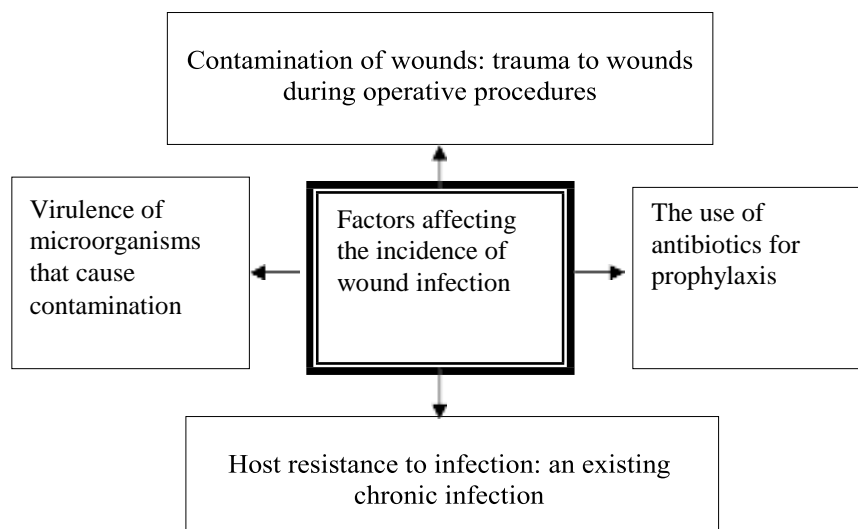


Chart 1: Factors Affecting the Incidence of Surgical Injury Infection

(Source: Morison 2004)

There are several factors that can affect the risk of wound infection. 1) Virulence of microorganisms that cause contamination is the level of pathogenicity as measured by the number of organisms needed to cause disease at a certain period of time so as to cause contamination. 2) Contamination of wounds ie if the wound is contaminated with bacteria. 3) The use of antibiotics for prophylaxis, namely to reduce the incidence of infection, and host resistance to infections caused by age. 4) Chronic infections that already exist. Based on the above factors post-caesarean wound care is the evacuation of all the swelling, seroma and treating the infection that causes it.

In addition, there are several studies that investigate the role of personal hygiene in wound healing after surgery. In connection with the role of personal hygiene in wound healing, Sulastri (2010) about the relationship of Hemoglobin Levels with Post SC wound healing in Rose Room I, Dr. Moewardi Surakarta examined respondents who were observed to heal wounds, found 29 (47.54%) primary patients recovered on the seventh day and 32 (52.46%) patients were cured but more than 7 days. None of the patients were excluded due to surgical site infection. The study design used cross sectional with a sample of 96 respondents, the way to take samples using purposive sampling technique. Furthermore, a report showed the relationship of personal hygiene to the occurrence of scabies in the students in an Islamic boarding school in Kalibeber

Wonosobo. The results of the study are students who have the habit of bathing <2 in a day only as much as 10.8% while students who have a habit of bathing = 2 in a day are 89.2%, students who have clean and short nails are 53% while students who have long and dirty nails are 47 %, students who used to change clothes after bathing as much as 53% while students who did not normally change clothes after bathing with clean ones as much as 57.8%, students who did not use towels together with friends as much as 67.5%, while students who used towels with friends as much as 32.5 %, and students who lay the mattress at least once a week as much as 47%, while those who do not lay the mattress at least once a week as much as 53%. The study design uses cross sectional with a total sample of 83 respondents, the way of sampling is by simple random sampling. A report also analyzed the relationship between Early Mobilization and Post SC Wound Healing in the Postpartum Room of NTB General Hospital. The results of the study were respondents who were included in the 6-8 hour mobilization time category of 10 people with criteria for slow wound healing as many as 6 people (37.5%) and the rest were included in the slow criteria of 4 people (25%). The study design uses cross sectional with a sample of 10 respondents, a way of taking samples by accidental sampling.

In the process of healing the wound starts from the occurrence of injury to the body; intact skin is the front line

of resistance to the entry of organisms. According to what was explained by Morison, (2004) that one of the wound healing phases is an acute inflammatory response to injury, which is the body's reaction to the wound that starts after a few minutes and lasts for about 3 days after the injury. As with Johnson & Taylor (2004) the inflammatory phase is the phase of heat (heat), dolor (pain), rubor (redness), tumor (swelling), functio laesa. This phase lasts for 36 hours, but can be longer if an infection occurs. The healing phase depends on several factors including the size and location of the wound, sutures, the patient's clinical condition, and infection. This of course cannot be separated from how severe cesarean section surgery and the risk of infection that occurs in patients so that the treatment provided in accordance with the conditions they experienced.

CONCLUSIONS

A wound is a break in the continuity of body tissue that interferes with normal cellular processes. On the other hand, a cesarean section is a surgical operation on the abdominal wall and uterus. This study analyzes the factors that influence the incidence of surgical wound infections. Wound healing can be seen from the presence or absence of infection in the wound with the characteristics of heat (heat), Dolor (pain), Rubor (redness), and Tumor (Freezing). There are several factors that can affect the risk of wound infection. First, virulence of microorganisms that cause contamination is the level of pathogenicity as measured by the number of organisms needed to cause disease at a certain time period so that it causes contamination. Second, contamination of wounds. This is if the wound is contaminated with bacteria. Third, the use of antibiotics for prophylaxis, namely to reduce the incidence of infection, and host resistance to infections caused by age. Fourth, chronic infections that already exist. Based on the above factors, post-cesarean wound care is an evacuation of all the swelling, seroma and treating the infection that causes it.

CONFLICT OF INTEREST

None

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