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SOI: <u>1.1/TAS</u> DOI: <u>10.15863/TAS</u>

JIF

International Scientific Journal
Theoretical & Applied Science

**p-ISSN:** 2308-4944 (print) **e-ISSN:** 2409-0085 (online)

Year: 2018 Issue: 11 Volume: 67

Published: 30.11.2018 <a href="http://T-Science.org">http://T-Science.org</a>

**SECTION 20. Medicine.** 

QR - Issue



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# PRESENTATION OF PATIENTS WITH SURGICAL SITE INFECTION

Abstract: Objective: To determine presenting signs and symptoms of patients with surgical site infection.

Design and duration: This is a cross sectional study started in February 2018 and completed in August 2018 comprising on total duration of 7 months.

Setting: This study was conducted in general surgery ward of Bahawal Victoria Hospital Bahawalpur. This is a tertiary care hospital of 1500 beds.

Patients and methods: Patients presented to the study hospital after operation from the same hospital with surgical wound infection were included in this study. These cases were underwent various operations for different diseases. Examination of wound was done in out-door of surgery and patients with infected wounds were included in the study. Patients with major infection were admitted and other cases with minor infections were given antibiotics. A performa was designed containing all necessary questions related to age, gender, duration of operation as mentioned on discharge slip, type of operation, disease and duration after operation.

Results: Total 150 cases were included in the study which were operated for various diseases and presented in out-door after 2 weeks for follow up. Age range was 15-58 years with mean age of 44.6 years. There were 30(20%) between age 15-25 years, 41(27.3%) between 26-35 years, 35(23.3%) between 36-45 years and 44(29.3%) cases above 45 years of age. Out of 150 cases 17(11.3%) got surgical site infection. Duration of operation was less than 30 mints in one case, less than one hour in 4(23.5%) cases, 60-90 mints in 5(29.4%) cases, 2 hours duration in 3(17.6%) and more than 2 hours duration in 4(23.5%) cases. Leucocyte count was less than 8000/mm3 in 3(17.6%) cases, 8000-10000/mm3 in 2(11.8%) cases, 11000-14000/mm3 in 8(47%) cases and more than 14000/mm3 in 4(23.5%) cases.

Conclusion: Surgical site infection is common in old age patients. These cases have high leucocytecount and prolong duration of operation is also an important factor in determining surgical site infection.

Key words: Surgical site infection, post operative infection, prolong surgery.

Language: English

*Citation*: Arshad Chohan, M., Rashid, A., & Abdul Rasheed, K. (2018). Presentation of patients with surgical site infection. *ISJ Theoretical & Applied Science*, 11 (67), 341-344.

Soi: http://s-o-i.org/1.1/TAS-11-67-60 Doi: crosses https://dx.doi.org/10.15863/TAS.2018.11.67.60

# Introduction

Infection of surgical wounds is a major complication leading to sepsis and failure of operation. It has many risk factors such as type of disease, type of procedure, duration of procedure, immunity status of the patient and post operative follow up etc. Patients presented to the study hospital

after operation from the same hospital with surgical wound infection were included in this study. These cases were underwent various operations for different diseases. Examination of wound was done in out-door of surgery and patients with infected wounds were included in the study. Patients with major infection were admitted and other cases with



= 1.500

ICV (Poland) = 6.630 PIF (India) = 1.940 IBI (India) = 4.260

minor infections were given antibiotics. Operation theater conditions during operation play important role in determining wound infections and success of procedure.

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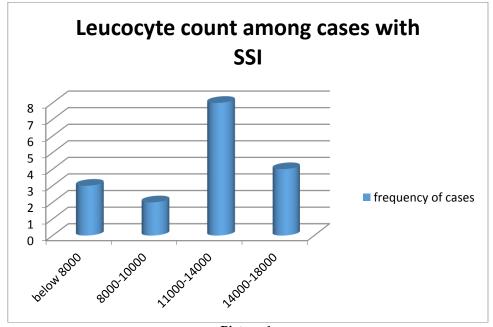
### Patients and methods

This study was conducted in Bahawal Victoria Hospital Located in Bahawalpur, a city of Pakistan. This is a tertiary care hospital with all necessary facilities. This study was completed in duration of 7 months. Inclusion and exclusion criteria were established and applied on the study sample. Patients presented to the study hospital after operation from the same hospital with surgical wound infection were included in this study. These cases were underwent operations for different Examination of wound was done in out-door of surgery and patients with infected wounds were included in the study. Patients with major infection were admitted and other cases with minor infections were given antibiotics. A performa was designed containing all necessary questions related to age, gender, duration of operation as mentioned on discharge slip, type of operation, disease and duration after operation.

#### Results

**SJIF** (Morocco) = **5.667** 

This study was conducted in Bahawal Victoria Hospital Located in Bahawalpur, a city of Pakistan. This is a tertiary care hospital with all necessary facilities. This study was completed in duration of 7 months. Inclusion and exclusion criteria were established and applied on the study sample. Patients presented to the study hospital after operation from the same hospital with surgical wound infection were included in this study. Total 150 cases were included in the study which were operated for various diseases and presented in out-door after 2 weeks for follow up. Age range was 15-58 years with mean age of 44.6 years. There were 30(20%) between age 15-25 years, 41(27.3%) between 26-35 years, 35(23.3%) between 36-45 years and 44(29.3%) cases above 45 years of age. Out of 150 cases 17(11.3%) got surgical site infection. Duration of operation was less than 30 mints in one case, less than one hour in 4(23.5%)cases, 60-90 mints in 5(29.4%) cases, 2 hours duration in 3(17.6%) and more than 2 hours duration in 4(23.5%) cases. Leucocyte count was less than 8000/mm3 in 3(17.6%) cases, 8000-10000/mm3 in 2(11.8%) cases, 11000-14000/mm3 in 8(47%) cases and more than 14000/mm3 in 4(23.5%) cases.



Picture 1.

Table 1.

Age of cases (years)	Number of cases (N)	%
15-25	30	20
26-35	41	27.3
36-45	35	23.3
Above 45	44	29.3



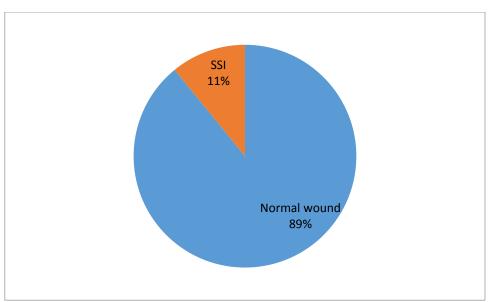
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Picture 2.

#### Discussion

In our country medical facilities are limited in peripheral areas in which surgical procedures are done in compromised sterilization environment making surgical wounds infected. Infection of surgical wounds is a major complication leading to sepsis and failure of operation. It has many risk factors such as type of disease, type of procedure, duration of procedure, immunity status of the patient and post operative follow up etc. Patients presented to the study hospital after operation from the same hospital with surgical wound infection were included in this study. These cases were underwent various operations for different diseases. Examination of wound was done in out-door of surgery and patients with infected wounds were included in the study. Patients with major infection were admitted and other cases with minor infections were given antibiotics. Operation theater conditions during operation play important role in determining wound infections and success of procedure. This study was

conducted in Bahawal Victoria Hospital Located in Bahawalpur, a city of Pakistan. This is a tertiary care hospital with all necessary facilities. This study was completed in duration of 7 months. Inclusion and exclusion criteria were established and applied on the study sample. Total 150 cases were included in the study which were operated for various diseases and presented in out-door after 2 weeks for follow up. Age range was 15-58 years with mean age of 44.6 years. There were 30(20%) between age 15-25 years, 41(27.3%) between 26-35 years, 35(23.3%) between 36-45 years and 44(29.3%) cases above 45 years of age. Out of 150 cases 17(11.3%) got surgical site infection. Patients presented to the study hospital after operation from the same hospital with surgical wound infection were included in this study. These cases were underwent various operations for different diseases. Examination of wound was done in out-door of surgery and patients with infected wounds were included in the study.

## **References:**

- 1. Leaper, D. J. (2004). *Wound Infection*. In: RCG Russell, NS Wil-liam, CJK Bulstrode (Eds.). Bailey & Love's Short Practice of Surgery; 24th ed. (p.118-132). London: Arnold.
- 2. Nicholas, R. L. (1992). Wound Infection rates following clean operative procedures: Can assume them below?(Editorial). *Infect Cont Hosp Epidemiol*, *13*, 455.
- 3. Pea, F., Viale, P., & Furlaunt, M. I. (2003, Feb.). Antimicrobial agents in elective surgery: Prophylaxis or early therapy? *J Chemotherap*, 15(1), 3-11.
- 4. Robson, M. C. (1997, June). Wound Infection. A failure of wound healing caused



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- by an imbalance of bacteria. Surg Clin North Am, 77(3), 637-650.
- 5. Martone, W. J., & Garner, J. S. (1991). Proceedings of the 3rd Decennial International conference on Nosocomial Infections. *Am J Med*, *91*(*3*), S1-S3.
- Steven, M., et al. (1995). Investigation and Treat-ment of Surgical infection. In: Cuscheri A, Steele RJC, Moossa AR, eds. Essential Surgical Practice, 3rd ed. (p.20). London: Butterworth Heinemann.
- 7. Damani, N. N., & Ahmed, M. U. (1999, Jan.). Prevention of Surgical Wound Infection. *Ann Abbasi Shaheed Hosp Karachi*, *4*, 131-132.
- 8. Holtz, T. H., & Wenzel, R. P. (1992). Post-discharge surveillance for Nosocomial Wound Infection. A brief review & commentary. *Am J Infect Cont*, 20, 206-213.
- 9. Ojiegbe, G. C., Njoku Obi, A. N., & Ojukwu, J. O. (1990, March). Incidence and parametric determinants of Postoperative Wound Infection in university teaching hospital. *Cent Afr J Med*, *36*, 63-67.
- 10. Wilson, A. P., Weavill, C., Burridge, J., & Kelsey, M. C. (1990). The use of wound scoring method 'ASEPSIS' in postop. wound surveillance. *J Hosp Infect*, *16*(4), 309.
- 11. Akhtar, S., et al. (2001, Sert.). Surgical Wound Site Infection-Our experience. *Ann King Edward Med Coll*, 7(3), 211-212.
- Hernandez, K., Ramos, E., Seas, C., Henostroza, G., & Got-uzzo, E. (2005, May). Incidence of and risk factors for Surgical Site Infection in a Peruvian hospital. *Infect* Control Hosp Epidemiol, 26(5), 473-477.
- 13. Yousuf, M., & Hussain, M. (2002, July). Need and duration of Antibio-tic therapy in Clean and Clean-contaminated Opera-tions. *J Pak Med Assoc*, 52(7), 284-286.
- Lizan-Garcia, M., Garcia-Caballero, J., & Asensio-Vegas, A. (1997, May). Risk factors for Surgical Wound Infection in general surgery: A prospective study. *Infect Control Hosp Epidemiol*, 18(5), 310-215.
- 15. Mark, R. M., & Edwin, A. D. (1994, June). Nutrition and Infection. Surg Clin North Am, 74, 659-664.

- Barber, G. R., et al. (1995, Oct.). Direct observations of Surgical Wound Infections at a com-prehensive cancer center. *Arch Surg*, 130 (10), 1042-1047.
- Ford, C. D., Van Moorleghem, G., & Menlove, R. L. (1993, June). Blood transfusion and Postoperative Wound Infection. *Surgery*, 113, 607.
- Twun, D. K., Grant, G., & Al-Suleiman, S. A. (1992). Microbiology of Postoperative Wound Infection. A prospective study of 1770 wounds. *J Hosp Infect*, 21, 29.
- 19. Abbasi, A. A., & Chaudhry, I. A. (2003, June). Prophylactic antibiotics in clean surgical wounds. *Rawal Med J, 28(1), 2-6.*
- 20. Colin, J. (1994). Diabetic skin and soft tissue Infections. Current opinion. *Infec Dis*, 7, 215.
- 21. Sorensen, L. T., Karlsmark, T., & Gottrup, F. (2003). Abstinence from smoking reduces Incisional Wound Infection: A randomized controlled trial. *Ann Surg*, 238, 1-5.
- 22. Mishriki, O. F., Law, D. J., & Johnson, M. G. (1991). Surgical audit. Variations in Wound Infection rates of individual surgeons. *J R Coll Surg Edin*, *36*, 251-253.
- 23. Eltahawy, A. T., Mokhtar, A. A., Khalaf, R. M., & Bahnassy, A. A. (1992, May). Postoperative Wound Infection at a university hospital in Jeddah, Saudi Arabia. *J Hosp Infect*, *21*, 79-83.
- 24. Hackam, D. J., & Robstein, O. D. (1995). Stoma closure and Wou-nd Infection. An evaluation of risk factors. *Can J Surg*, 38(2), 148
- 25. Arora, S., Prabhakar, H., Garg, B. B., & Jindal, N. (1990, June). Anaerobic bacterial flora of Wound Sepsis. *J Indian Med Assoc*, 88, 154-6.
- Kasatpibal, N., Thongpiyapoom, S., Narong, M. N., Su-walak, N., & Jamulitrat, S. (2005). Extra charge and extra length of Postoperative Stay attributable to Surgical Site Infection in six selected operations. *J Med Assoc Thai*, 88(8), 1083-1091.
- Dixon, R. E. (1987). Costs of Nosocomial infections and be-nefits of Infection control programs. In: R.P. Wenzel (Eds.). Prevention and Control of Nosocomial Infections. (p.19-25). Baltimore: Williams & Wilkins.

