Picot question literature review examples

Health & Medicine, Disease

“ Shaving versus Clipping: Which preoperative hair removal method reduces the risk of surgical site infection?"

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Hwang, S., Kim, S., Park, K., Im, S., Shin, W., & Kim, B. (2012). Outpatient-based scalp surgery without shaving and allowing use of shampoo. World Neurosurgery, 77(2), 391-393.

1. A study in the outpatient setting which aims to establish the benefits of “ shaveless” surgery. It challenges previously held beliefs about the advantages of shaving.

2. Retrospective observational study on the outcomes of minor scalp surgery without the conventional shaving of hair. The procedures were performed on 93 patients by only one surgeon in a Korean medical hospital. A predefined surgical technique was followed for all the no-shave procedures. A limitation is the lack of comparison and the small sample size.

3. Only one out of 93 patients experienced a surgical wound complication. This was treated and subsequently healed. The rate of adverse outcomes is very low supporting the merit of not removing hair during scalp surgery.

4. In providing holistic care, preserving the aesthetic appearance of patients following minor outpatient surgery should be part of the nursing care plan. This can increase patient satisfaction with care.

This is a retrospective observational study of the outcomes of no-shave, minor scalp surgery. As patients would want to return to work and other activities following the removal of a scalp mass, it is important to preserve the cosmetic appearance of the head and hair. A sample of 93 patients in an

outpatient setting underwent procedures performed by one surgeon and without hair removal. The surgical technique included parting the hair to expose the area of excision and using adhesive plaster to keep the parted hair in place. Povidone-iodine and alcohol were used for scalp preparation and antibiotics were administered. Wounds were closed using staples. The dressing was removed the day following surgery and hair shampooing was encouraged, as was the application of topical antibiotics. Only one patient experienced a wound complication. Based on recall of patients' feedback, most were satisfied with no-shave surgery. The study validates the positive patient outcomes of not removing scalp hair during surgery and in the absence of RCTs should be adopted in clinical practice.

Sebastian, S. (2012). Does preoperative scalp shaving result in fewer postoperative wound infections when compared with no scalp shaving? A systematic review. Journal of Neuroscience Nursing, 44(3), 149-156.

- A study that aims to inform the current debate on whether to shave patients' hair or not during preoperative patient preparation for neurosurgical procedures.

- The first systematic review to focus on the effect of scalp shaving on wound infecton rates in a neurosurgical setting. One limitation is that only one researcher evaluated the studies and extracted data. This is a potential source of bias. Another limitation is the small sample sizes of the studies selected.

- Shaving may increase the incidence of wound infection and should be avoided but studies with larger samples still need to be done. When considering not removing hair, the primary purpose should be to preserve

the patient’s cosmetic appearance.

- The above recommendations provide guidance to nurses in the neurosurgery setting and again underscores the need to take into consideration the aesthetic outcomes of procedures.

The first systematic review on the association between wound infection and scalp shaving in neurosurgery. Eight databases were used to search and retrieve 18 RCTs and observational studies conducted between 1987 and 2009. However, only one researcher evaluated the studies and extracted data. Many of the studies suggest that not removing hair is safe, does not result in infection, does not result in a significant difference in terms of infection rates compared with shaving, results in lower infection rates compared with shaving, or were comparable to the rates identified in other studies. Other findings were that no shaving enhanced the aesthetic outcome of surgery as increased patient satisfaction. A drawback is the small sample size of some of the studies. There is also difficulty with a quantitative comparison across studies because of differences in surgical techniques, infection criteria, and methods of measurement among others. Hence, the review concludes that shaving may increase the incidence of wound infection and should be avoided but studies with larger samples still need to be done. When considering no hair removal, the primary purpose should be to improve cosmetic outcomes. These recommendations inform nursing practice in the neurosurgery setting.

Shereif, W. I., & Hassanin, A. A. (2009). Impact of the time and method of preoperative hair removal on surgical site infection in lower abdominal surgery. Medical Journal of Cairo University, 77(3), 107-113.

1. A study comparing the outcomes of shaving the night before and shaving right before surgery with clipping right before surgery.
2. The study is quasi-experiment with a small convenience sample limited to patients due for surgery in the lower abdomen. The sample was divided into three groups. Data was collected over a period of nine months and comparisons on several measures were obtained at one and two weeks.
3. Results show that clipping immediately prior to surgery had the best outcomes with the lowest measures on abnormal assessments and the highest in speed of healing. At two weeks, no participant in this group had positive wound cultures unlike the other two groups.
4. The study suggests that when hair removal is truly necessary, the safest way to do it is by clipping and at the nearest possible time to the procedure.

A quasi-experimental study comparing the differences between the timing of two hair removal methods on surgical site infection. The convenience sample was small, consisting of 152 patients for lower abdominal surgery. They were assigned to three groups – hair removal by razor on the night before surgery, shaving via razor right before the procedure, and hair removal by clippers right before the procedure. Prophylactic antibiotics were administered to all participants and good compliance was noted in the majority. Data on SSI was obtained one and two weeks after surgery. Analysis of data showed that shaving on the night before surgery resulted in the highest rate of wound contamination, erythrocyte sedimentation rate (ESR), white blood cell (WBC) count, and signs and symptoms of systemic infection. Nearly 12% of this group had positive wound cultures while the other groups had none. Clipping right before surgery was found to have the lowest values in abnormal

outcomes and the highest in terms of healing. At two weeks postop, only this group did not yield any positive cultures. Thus, when hair needs to be removed, clipping immediately prior to the procedure is the best method. Adopting this intervention has the potential to reduce SSI and facilitate faster healing in patients.

Tokimura, H., Tajitsu, K., Tsuchiya, M., Yamahata, H., Taniguchi, A., Takayama, K., Arita, K. (2009). Cranial surgery without head shaving. Journal of Cranio-Maxillofacial Surgery, 37(8), 477-480.

- A study documenting the no-shave practice of performing cranial surgery in a Japanese hospital.

- A retrospective observational study on the influence of not shaving hair prior to cranial surgery on surgical site infection (SSI). A large sample of 632 patients between 2001 and 2007 were operated on by one surgeon without hair removal.

- Seven patients or 1. 1% developed infections but all had significant risk factors such as diabetes. This rate falls within the infection rates identified in other studies on the same no-shave intervention and surgical procedure. This led to the conclusion that the protocol did not increase or decrease infection rates. As such, not removing hair can be adopted for other benefits such as improving the psychological outcomes of cranial surgery patients.

- Nurses must also focus on the psychosocial needs of surgical patients in order to prevent depression, low self-esteem, and other mental health issues.

Describes a neurosurgical protocol wherein hair is not removed to prevent the negative psychological effects associated with hair removal.

Postoperative wound infection was the selected outcome and the sample was large consisting of 632 patients. Preoperative components of the protocol were using commercial shampoo to wash hair the day before surgery, and antibiotic administration. A chlorhexidine-alcohol solution was applied on both hair and scalp prior to incision. Hair inside the wound was removed prior to closure. On the second postoperative day, the dressing was removed and hair was shampooed every other day as part of wound care. Wound infection was assessed and categorized using Mangram's criteria. Based on retrospective data, 7 patients or 1. 1% developed infections but all had significant risk factors. The point of comparison was the infection rates in other studies on the same intervention and surgical procedure. The authors concluded that their protocol did not increase or decrease infection rates. However, it is difficult to isolate the effect of no hair removal given other factors that could have minimized infection. Hence, adopting the protocol warrants careful consideration. Finally, addressing the impact of shaving on body image should be an important part of nursing interventions.

References

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