探討一般外科術後乾淨傷口病人早期淋浴對傷口感染之影響

The Effect of Early Shower on Wound Infection in Patients with Clean Wounds after General Surgery

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背景(Background)

手術部位傷口感染(Surgical Site Infection, SSI)為手術照顧的重要議題，為了避免造成手術部位感染，直到拆線後才開始淋浴為一般外科病人現行之常規術後照護。但是，目前無顯著證據證明傷口直到拆線後淋浴的益處，且近幾年實證研究指出早期淋浴在感染率無顯著差異且滿意度有顯著提升。

且在悶熱和潮濕的天氣中，是否可早期淋浴也是病人普遍關心的議題。

目的(Purpose)

評估早期淋浴是否與手術後傷口的感染率有關，提供較早淋浴的手術傷口的標準化依據。

方法(Methods)

- 進行系統性文獻搜尋及評讀，總共納入二篇 R*andomized controlled trial (RCT)*及一篇Systematic review (SR)，將這三篇文獻的臨床研究結果，以Random effect進行統合分析，結果呈現早期淋浴對於手術後傷口感染率並沒有顯著差異 (Fig.1) 。
- 本研究採類實驗研究，收案期間為107年11月1日至11月24日，共收案52位病人，實驗組22人，對照組30人(Fig.2) 。
- 實驗組22人在手術後24至48小時淋浴。
- 實證臨床應用於一般外科術後無引流管乾淨傷口病人，研究收案流程圖(Fig.3)

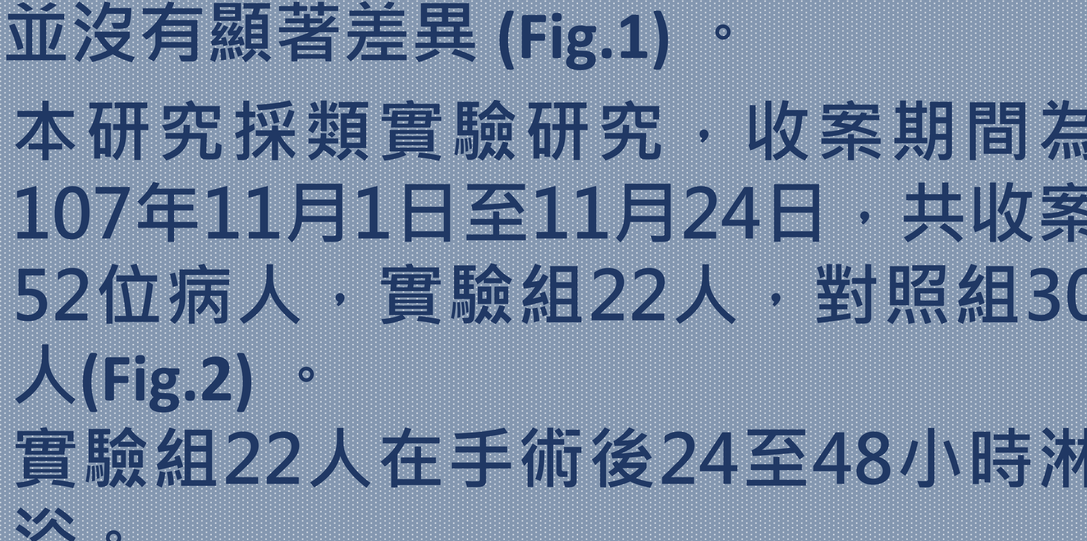

Fig 2

結果(Result)

術後早期淋浴的病人術後傷口感染率無顯著差異。

變　項	實驗組(N=30)		對照組(N=22)		
	Mean	SD	Mean	SD	P
傷口開始淋浴時間(hrs)	79	62	48	31	0.006**
傷口是否感染(N/%)	1 (闌尾炎手術，傷口癒合不良)	3%	0	0%	1.000

註：
•以曼-惠特尼U (Mann-Whitney U) 和卡方檢定(Chi-square test)來檢視兩組間對於傷口照護滿意度、感染及開始淋浴時間之差異。
*p<0.05、**p<0.01、***p<0.001

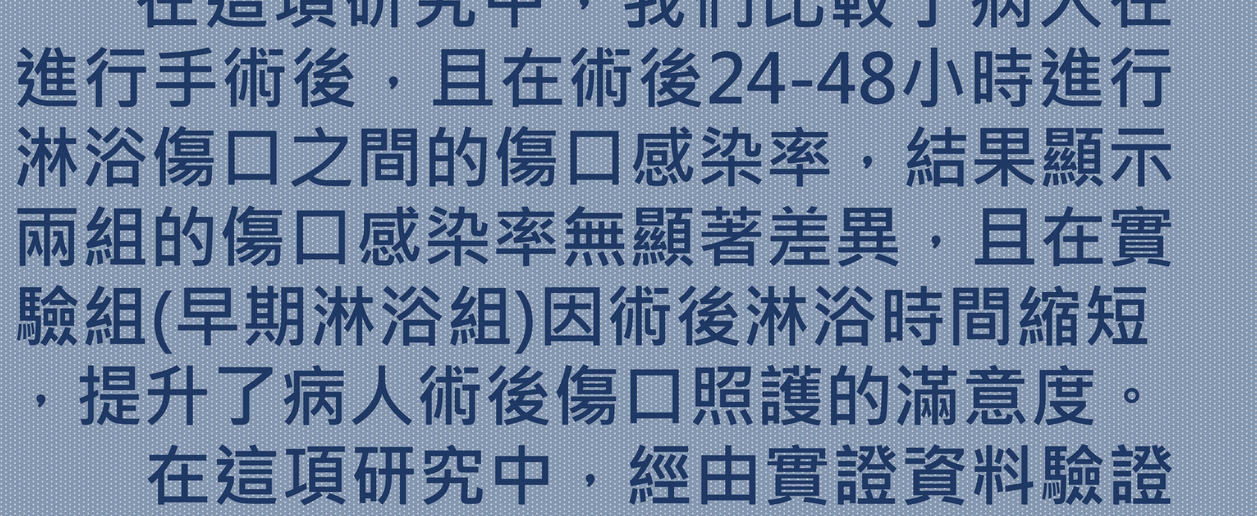

Fig 1

結論(Conclusion)

在這項研究中，我們比較了病人在進行手術後，且在術後24-48小時進行淋浴傷口之間的傷口感染率，結果顯示兩組的傷口感染率無顯著差異，且在實驗組(早期淋浴組)因術後淋浴時間縮短，提升了病人術後傷口照護的滿意度。

在這項研究中，經由實證資料驗證並應用於臨床實務，是直接和臨床照護做連結的一個創新思維也是一個起步，期能建構未來「手術後早期沐浴照護標準作業規範」，以提升病人術後傷口照護的滿意度。

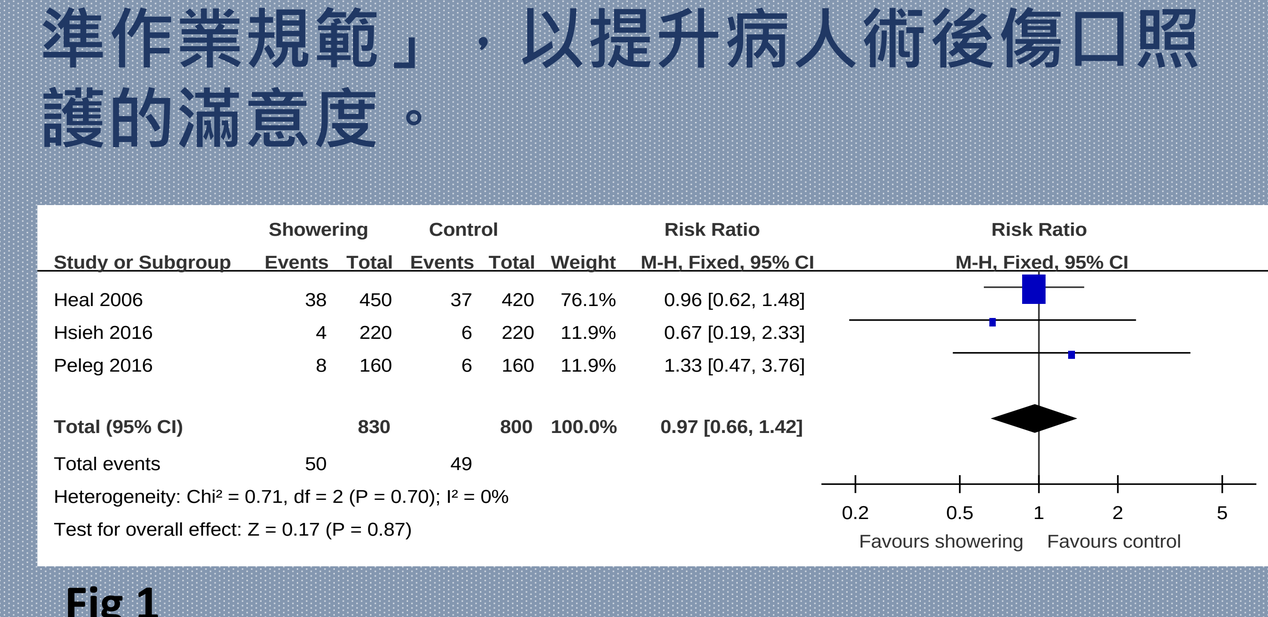

Fig.3

Fig.4

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To investigate the effect of early shower on the infection rate of surgical sites after breast surgery

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Background

The consensus on surgical wound care is that wound needs to cover dressing and keep dry until wound stitches are removed. However, the most common patient complaint about wound dressing is skin itchiness. Prolonged duration of avoidance of showering is also a common concern of patients in hot and humid weather.

In consideration of the lack of local evidence-based study and standardized guideline of surgical wound with earlier shower, we conducted this research to evaluate that if early shower is related to the infection rate of the wound after surgery.

Methods

- Experimental study designed to Convenience sampling of 24 breast surgery patients with surgical wounds but without drainage tube indwelling in a medical center in northern Taiwan .
- Sampling assignment is divided into two groups (EG and CG)according to the patient's wishes.
- 10 patients assigned to EG(Experimental group) can took shower 24 to 48 hours after surgery, and 14 patients assigned to CG(Control group) took shower 7 days after surgery.
- Evaluation of surgical infections on the 1st, 7th, and 30th day after surgery using the ASEPSIS score tool.
- Kruskal wall's and Chi-Square Test were used for data analyzed.

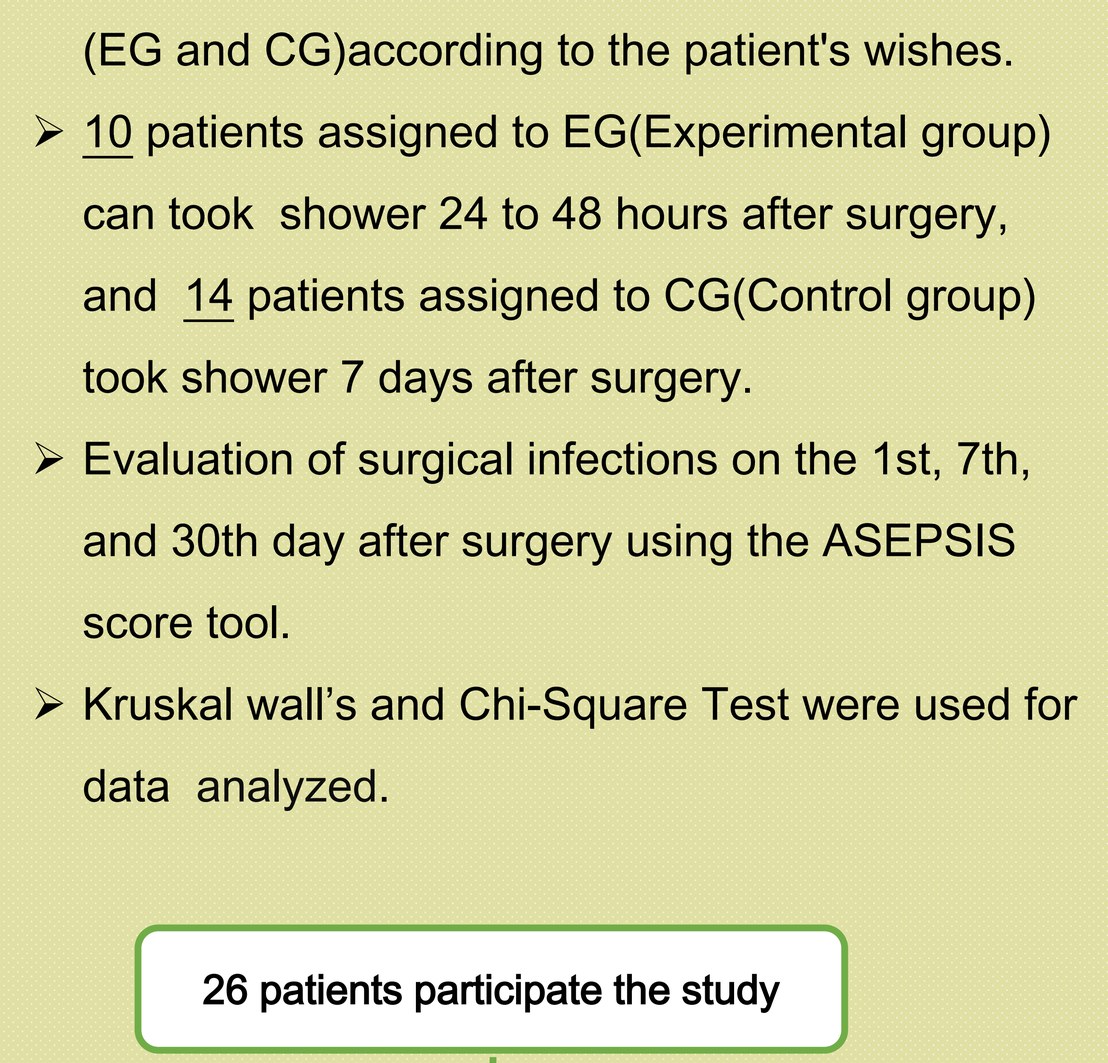

Figure 1. Flowchart of patient enrolled, assigned, and follow up

Result

There was no significant difference in postoperative wound infection rate for patients with early shower after breast surgery.

Table1. Basic data category variables of experimental and control group

Variable	Experimental Group (n=10) Number(%)	Control group (n=14) Number(%)	P-value
Education Level			.16[a]
Junior High School	1(10%)	5(35.7%)	
High School	4(40%)	5(35.7%)	
College(including above)	5(50%)	4(28.6%)	
History of steroids			–
No	10(100%)	14(100%)	
Yes	0	0	
History of Surgery			.22[b]
No	7(70%)	8(57.1%)	
Yes	3(30%)	6(42.9%)	
History of Allergy to sutures in surgery			.53[a]
No	3(30%)	6(42.9%)	
Yes	0	0	
Not applicable	7(70%)	8(57.1%)	
History of Surgical Site Infection Assessed By Physician			.53[a]
No	3(30%)	6(42.9%)	
Yes	0	0	
Not applicable	7(70%)	8(57.1%)	
A shower before operation			–
No	0(0%)	0(0%)	
Yes	10(100%)	14(100%)	
Surgical Procedure			.36 [a]
Lumpectomy	0	1(7.1%)	
Wire Excision	3(30%)	7(50%)	
Partial Mastectomy	1(10%)	0	
Core- Biopsy	1(10%)	0	
Lumpectomy + Sentinel Lymph Node Biopsy	4(40%)	5(35.7%)	
Re-Excision + Sentinel Lymph Node Biopsy	1(10%)	0	
Core- Biopsy + Sentinel Lymph Node Biopsy	0	1(7.1%)	
Antibiotic use after Surgery			–
No	10(100%)	14(100%)	
Yes	0(0%)	0(0%)	
Preoperative maximum body temperature			–
<37.5℃	10(100%)	14(100%)	
>37.5℃	0	0	
Intraoperative maximum body temperature			–
<37.5℃	10(100%)	14(100%)	
>37.5℃	0	0	
Maximum body temperature during recovery room			.00[b]
<37.5℃	9(90%)	14(100%)	
>37.5℃	1(1%)	0	
Body temperature after returning to the room			–
<37.5℃	10(100%)	14(100%)	
>37.5℃	0	0	

Table2. Analysis of ASEPSIS score after postoperative patient intervention in early shower

	Experimental Group (n=10)	Control Group (n=14)
OP day 1	0	0
OP day 7	0	0
OP day 30	0	0

Conclusion

In this study, we compared the wound infection rate between 24-48-hour post-operation wounds after breast surgery to take shower, or one week later. There was no significant difference in the infection rate between the two showers groups. But this study is confined only in one hospital. Short duration of follow up also limited the power of the evidence. We need larger sample size and extend the duration of observation and evaluation to make our conclusion more definite.