

# Pilonidal sinus disease, Open excision versus SiLaC

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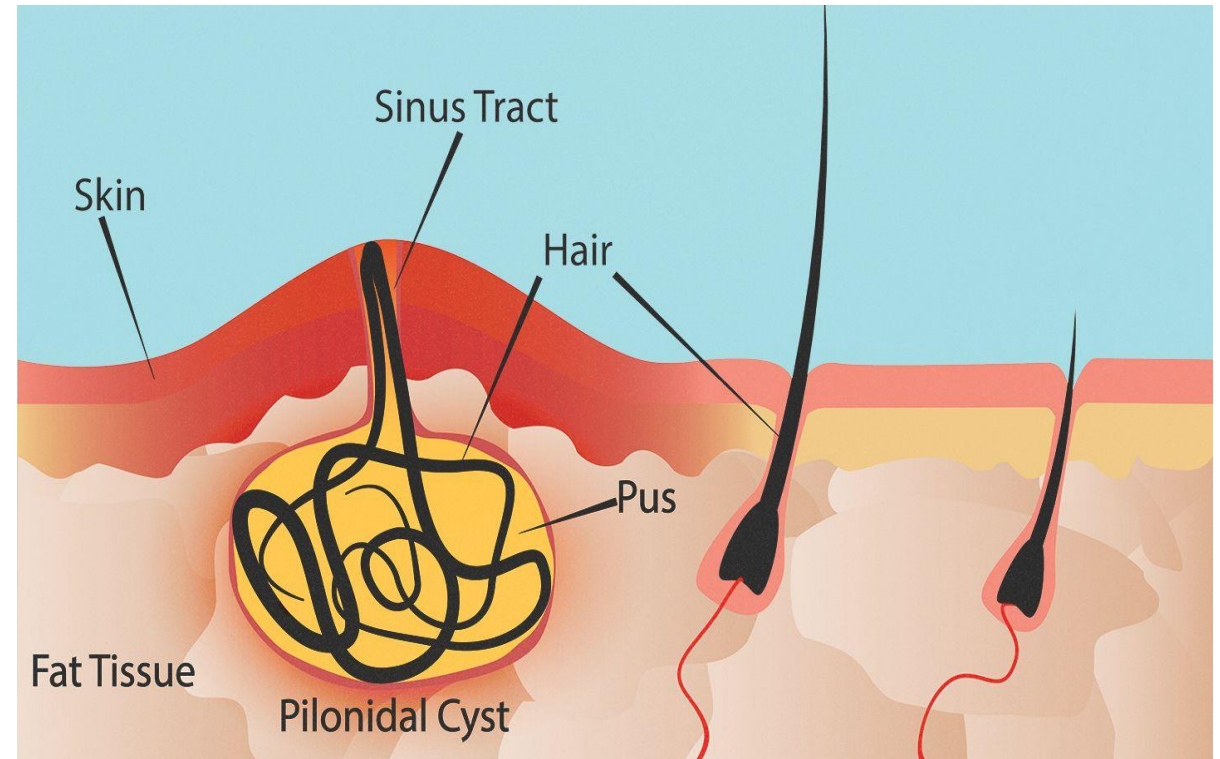
A CONTROLLED RANDOMIZED TRIAL

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# Introduction

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- ❑ Pilonidal sinus disease (PSD) is a benign acquired disease generally between 15 and 30 years old. It has an estimated prevalence of 26-46 cases per 100,000 inhabitants.
- ❑ No precise etiopathogenesis, however, excessive body hair, obesity and a sedentary lifestyle have all been identified as risk factors
- ❑ The most common complaints are pain, discharge, bleeding, and itchiness around the sacrococcygeal region.



# Introduction

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A gold standard definitive treatment for PSD remains **controversial** despite the variety of surgical options.

- ❑ Surgical **excision** of the sinuses and tracts with either a primary or secondary closure technique.
  - Risks of impaired or delayed wound healing, infection, persistent pain with a chance of recurrence up to 20% (Pappas AF, etal 2018).
- ❑ **Off-midline closure** techniques, such as the Bascom cleft lift, Karydakis or Limberg flap.
  - Fair wound healing times and low recurrence rates for patients with persistent, recurrent or complex PD. (Harju J etal, 2020).
- ❑ Minimally invasive technique like pit picking and a sinus laser-assisted closure (**SiLaC**).
  - Equal low recurrence rate and wound healing time would be ideal for this predominantly young patient group, especially for those with limited PSD. High success rates ranging from **85 to 92%**. (Georgiou GK 2018)

# Aim of the work

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- compare between SiLaC (Sinus Laser Closure) and Open excision in management of PSD
- Regarding healing rate, recurrence, complications, hospital stay and postoperative pain.

# Materials and Methods

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- Prospective randomized study
- 40 consecutive patients suffering from PSD.
- General surgery department, Kafr Elsheikh university hospital from June 2020 to June 2022.

# Materials and Methods

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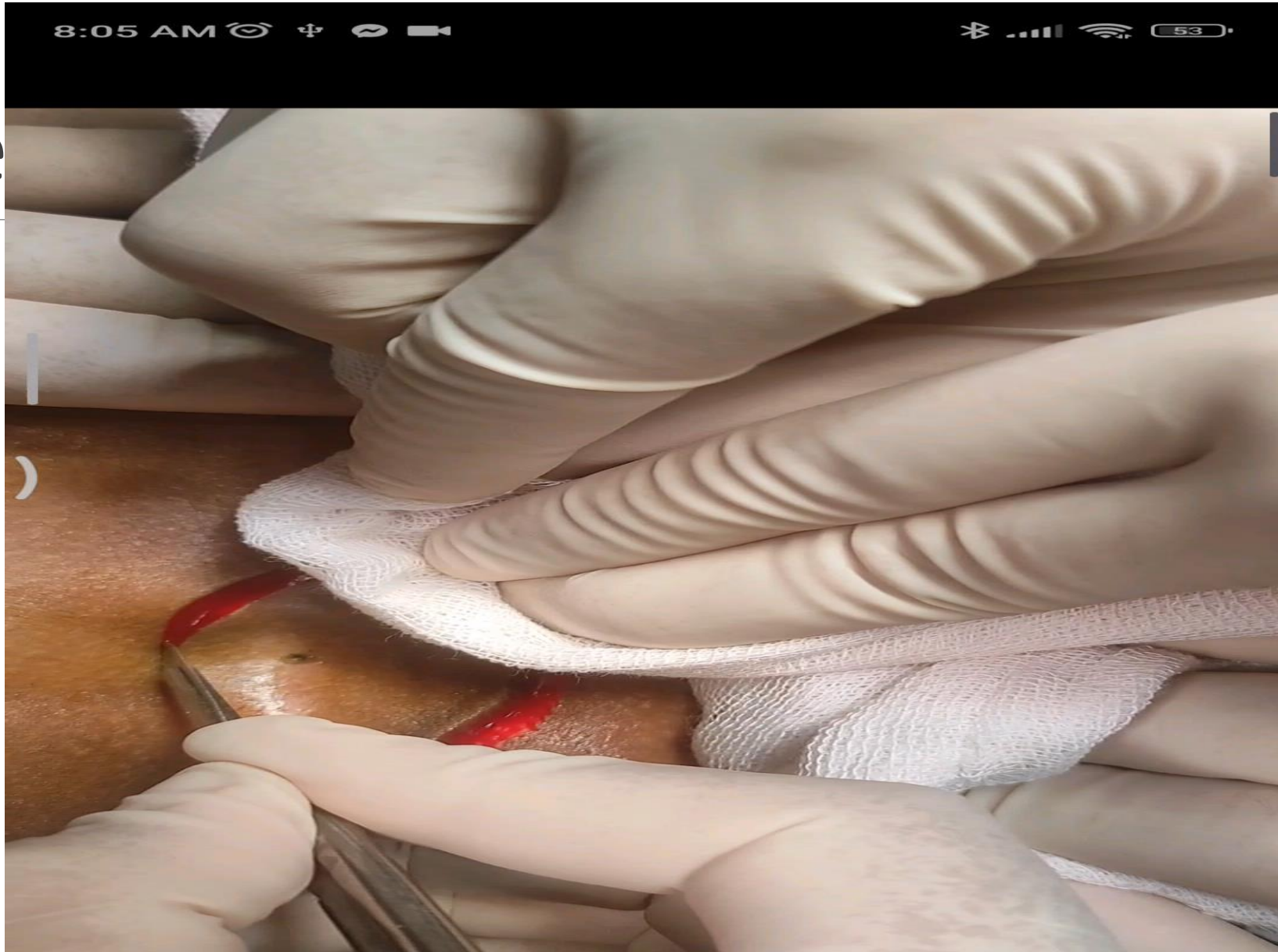
Inclusion criteria:	Exclusion criteria:
<p>All patients 18-60 years old suffering from sacrococcygeal PSD.</p>	<ul style="list-style-type: none"><li>• Pilonidal abscess</li><li>• Diabetic patient</li><li>• HGB &lt; 10 g/dl</li><li>• Platelet count &lt; 105/ul</li><li>• Anticoagulant treatment</li><li>• Wound cavity &gt;35cc</li></ul>

# Randomization

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Group A (n=20)	Group B (n=20)
Open excision of PSD with regular postoperative dressing and care.	SiLaC procedure with Diode Laser Machine 1470 nm using radial fibers

Ope





# Operativ





Results



# Results



18 days



Results



45 days

# Results

Comparison between the studied groups regarding demographic data: There is statistically non-significant difference between the studied groups regarding gender, age, smoking or body mass index

Parameters	Groups		Test	
	Group A	Group B	$\chi^2$	p
	N=20(%)	N=20(%)		
<b>Gender:</b>				
Male	12 (60%)	13 (65%)	0.058	0.971
Female	8 (66%)	7 (35%)		
<b>Smoking:</b>				
No	14 (70%)	17 (85%)	0.079	0.961
Yes	6 (30%)	3 (15%)		
	<b>Mean <math>\pm</math> SD</b>	<b>Mean <math>\pm</math> SD</b>	<b>F</b>	<b>p</b>
Age (year)	25.52 $\pm$ 5.96	26.78 $\pm$ 4.14	0.627	0.537
BMI (kg/m <sup>2</sup> )	<b>28.8<math>\pm</math>2.57</b>	<b>29.3<math>\pm</math>2.71</b>	1.104	0.334

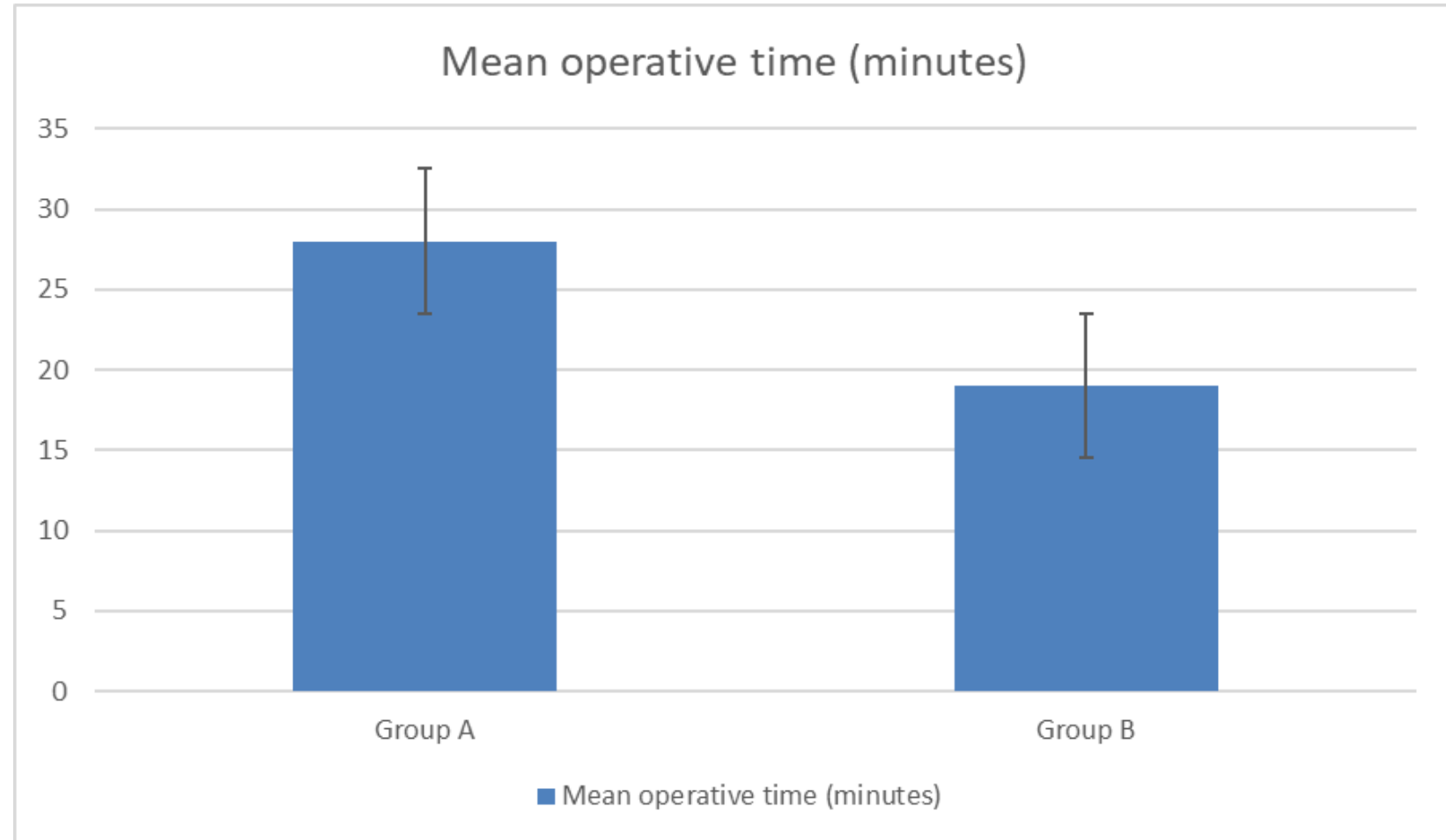
# Results

## operative time

statistically significant difference between the studied groups regarding operative time

The mean operative duration  $28.63 \pm 7.42$  min in group A

$19.45 \pm 5.41$  min in group B



Simple bar chart showing comparison between studied groups regarding operative time

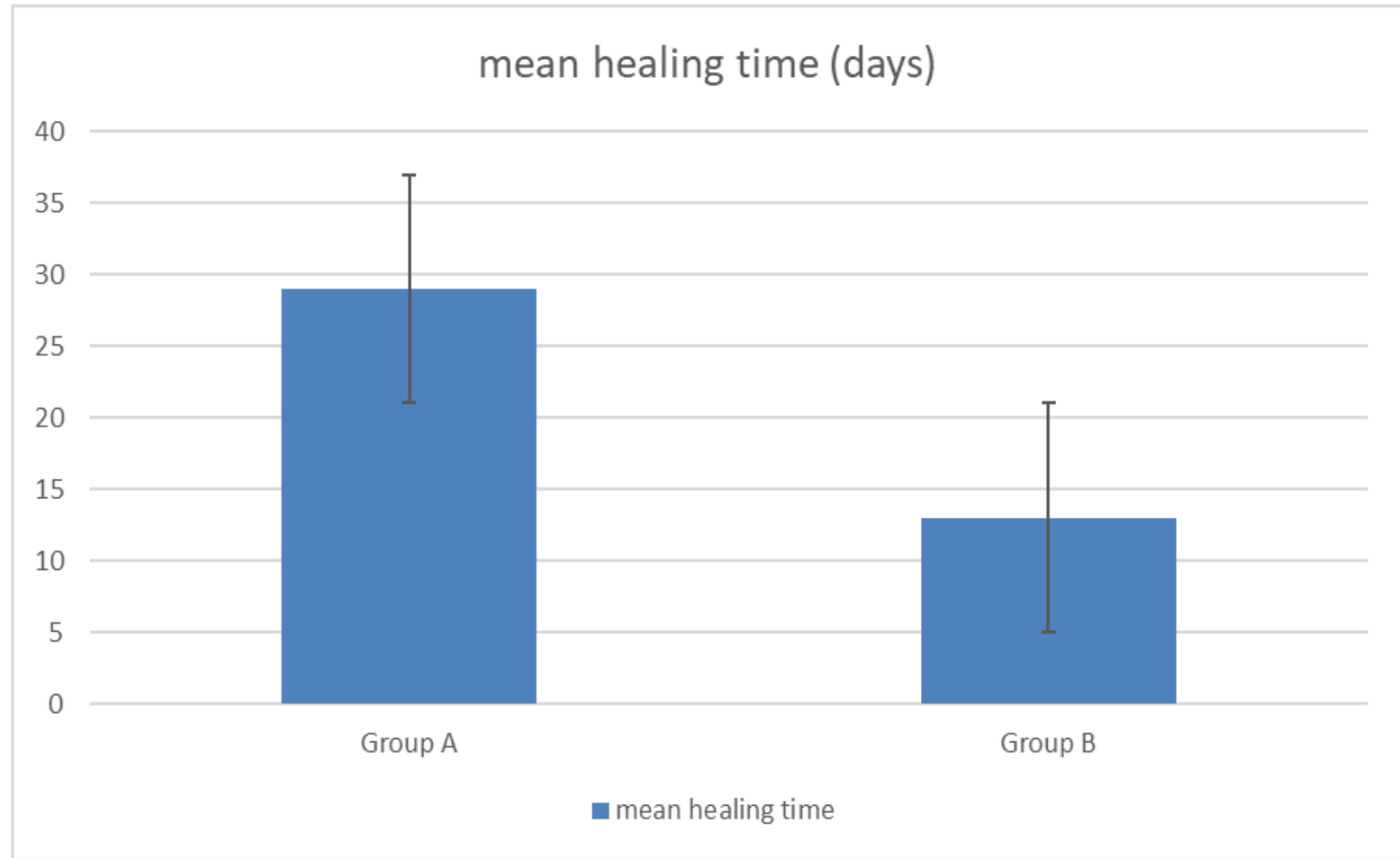
# Results

## Healing time

statistically significant difference  
between the studied groups regarding  
operative time

The mean healing duration  $29.5 \pm 14.4$   
days in group A

$13 \pm 6.4$  days in group B

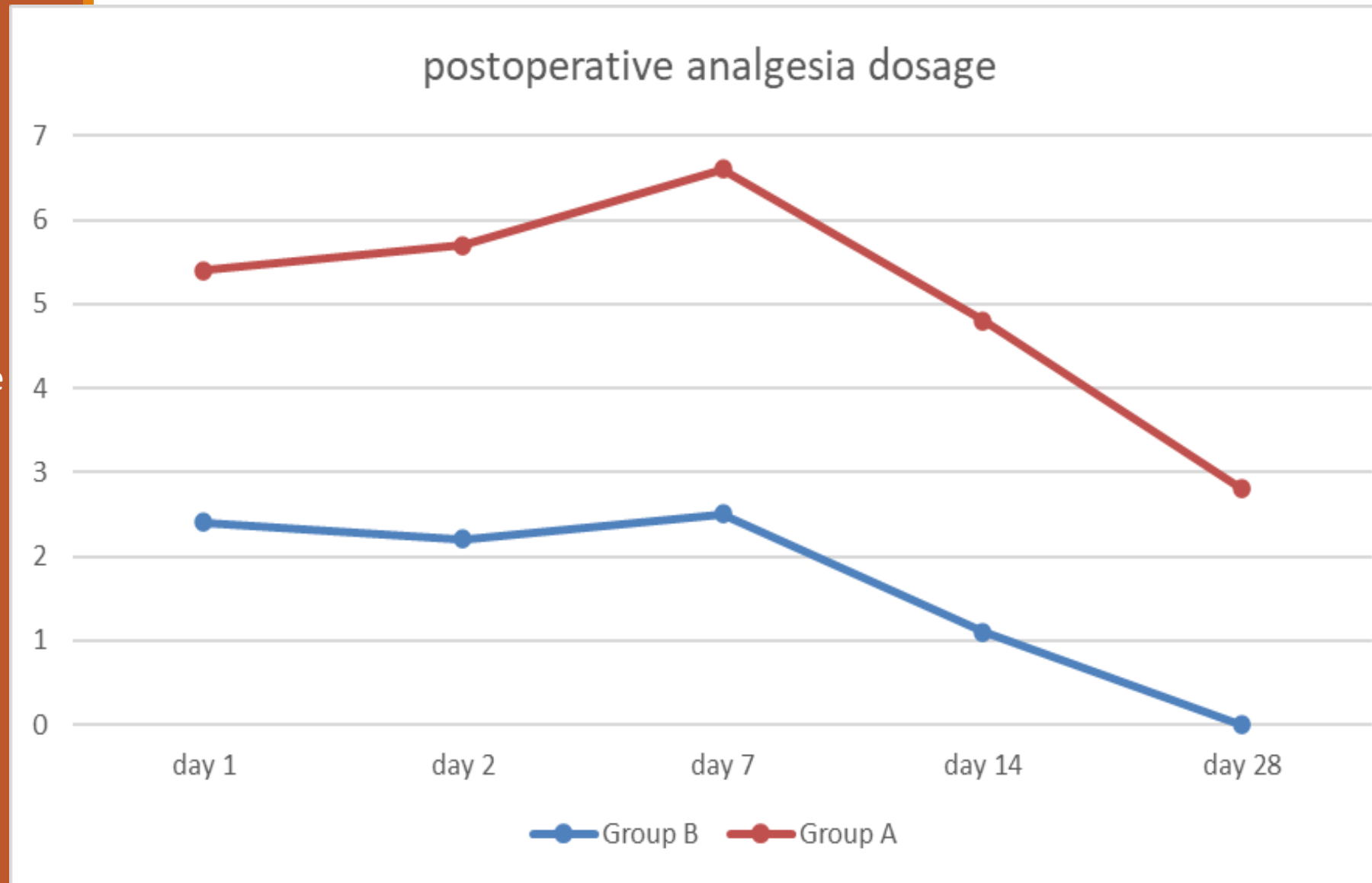


Simple bar chart showing comparison between studied groups  
regarding healing time

# Results

## postoperative analgesia

Mean duration of postoperative analgesic therapy was  $4.72 \pm 5.64$  days in Group B in comparison with  $17 \pm 3.47$  days in Group A





# Results

## Time to return to work

There is no statistically significant difference between the studied groups regarding time to return to work or length of hospital stay

Parameters	Groups		Test
	Group A	Group B	p
	Mean $\pm$ SD	Mean $\pm$ SD	
Time to return to work (day)	14.7 $\pm$ 1.13	8.26 $\pm$ 0.85	<0.001
Hospital stay (hours)	18 $\pm$ 7	17 $\pm$ 5	<0.001

# Results

## Complications

Group A	Group B
1 case of recurrence	2 patients had recurrence ,were submitted to another SiLaC session with no recurrence in 6 months.
2 cases had wound infection required course of antibiotic drugs and local antiseptic solutions	No cases of infection

# Conclusion

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- SiLaC had good results in terms of healing and complications allowing a rapid recovery and rapid return to work or school over open excision.
- SiLaC is easy to perform and reproducible with a short learning curve.
- SiLaC should become one of the treatments of choice for PSD, especially for more complex cases.

# Thank you

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