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Preoperative Instillation of Epinephrine and Lidocaine Can Reduce Surgical Time in the Endoscopic Treatment of GTPS

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Faculty Disclosure Information

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Introduction

Greater Trochanteric Pain Syndrome (GTPS) is a multifactorial clinical condition affecting the lateral area of the hip. Although conservative treatment shows good results, some patients may still require surgical bursectomy, which can be performed either openly or endoscopically.

One of the main technical difficulties of the endoscopic procedure is intraoperative bleeding, which can hinder the medical team's vision and increase the surgical time for endoscopic treatment of GTPS.

The aim of the current study is to describe the efficacy of a preoperative instillation of vasoconstrictors and local anaesthetics before endoscopy in the improvement of surgical timings through the reduction of intraoperative bleeding.

Material and methods

Between March 2014 and January 2020, all patients operated for lateral hip pain secondary to GTPS and refractory to conservative treatment were included in the analysis. All patients had previously undergone physical therapy sessions, anti-inflammatory therapies, focal shock wave sessions, and/or application of ultrasound-guided local corticosteroid infiltrations.

Patients were retrospectively divided in two groups, depending on the application or not of a preoperative instillation of physiological saline solution with epinephrine and lidocaine. The instillation technique was introduced to the normal surgical practice at our institution in February 2014**. Surgical times were compared** between patients operated before and after this modification of the surgical protocol.

Material and methods

A total of 139 hips from 139 patients were included in the analysis. 102 patients were included in the instillation group versus 37 in the control group.

Table 1. Patient characteristics differences between instillation and control group.

	Control group (n = 37)	Instillation group (n = 102)	*p* value
Age	52.37 (13.46)	51.51 (14.26)	0.749
BMI	25.64 (4.09)	24.82 (4,73)	0.351
Sex (Male %)	32.4%	26.5%	0.489
Hip side (Right %)	48.6%	50.0%	0.888

Material and methods

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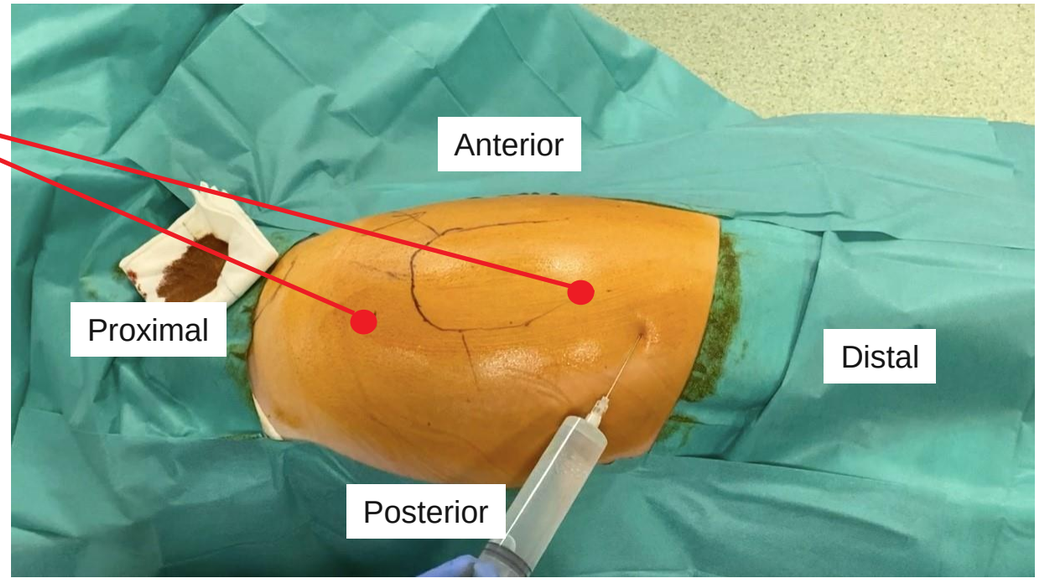
Surgical technique:

In the infiltration group, a solution of 100 ml of physiological serum with 1 ml of epinephrine and 5 ml of lidocaine was injected subcutaneously through a 22G spinal needle. The solution was instilled in a fan way through the subcutaneous space, without exceeding the *fascia lata* or the muscular area and covering the area comprised between two centimeters proximal, two centimeters anterior, two centimeters posterior and four centimeters distal from the greater trochanter.

Endoscopic portals



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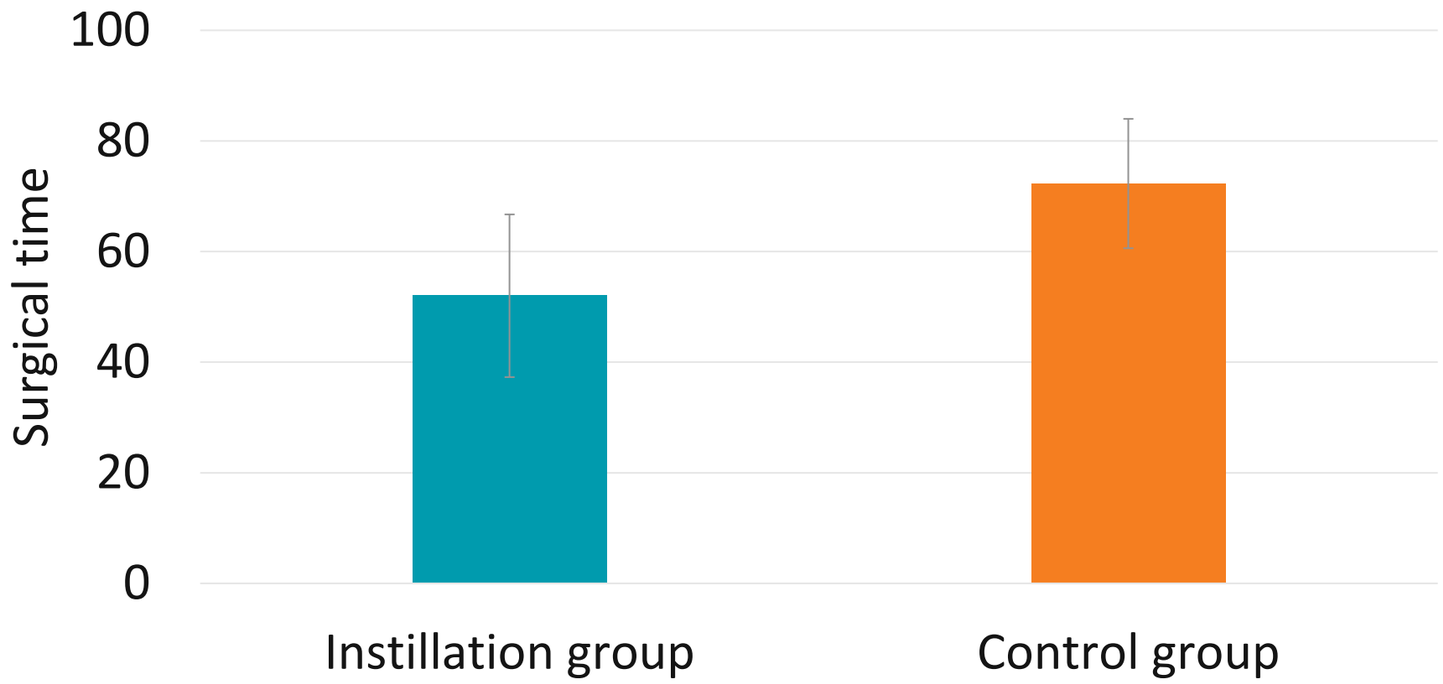
Results

Preoperative instillation of lidocaine and epinephrine significantly reduced the surgical time in patients with endoscopic treatment of GTPS from 72.30 ± 11.70 minutes to 52.01 ± 14.71 minutes ($p < 0.05$).



Conclusions

The instillation of a physiological saline solution with epinephrine and lidocaine prior to the surgical treatment of GTPS is effective in reducing surgical times, likely due to a reduction in intraoperative bleeding.

Future research should focus on more direct outcomes such as intraoperative blood loss and the influence of different instillation protocols.

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