



### INTRODUCTION

Meralgia paresthetica (MP) is pain and/or numbness in the anterolateral aspect of the thigh. Surgery is offered if conservative measures fail. The results of simple decompression of the lateral femoral cutaneous nerve (LFCN) to treat MP have been unsatisfactory with frequent need for revision surgery and/or neurectomy. There is anatomical variability of the course of the LFCN. However, in most cases of MP, the nerve is in close proximity to the anterior superior iliac spine (ASIS). We believe most failures or recurrences are due to scar tissue and preservation of the relationship to the ASIS. We explored the anatomical feasibility of transposing the nerve away from the ASIS. Early patient experience is very promising.

### METHODS

Fresh cadaver dissection was used. The LFCN was exposed in the upper thigh just medial to the ASIS. *First stage: decompression:* the fascia overlying the nerve is opened, the nerve is followed proximally under the inguinal ligament which is opened. Blunt dissection allows for retroperitoneal decompression. *Second stage: transposition:* the fascia underlying the nerve is opened. Opening this fascia as well as the septum medial to the sartorius muscle allows to mobilize the nerve medially and bury it in the muscle. The nerve can be kept in place with a stay suture. The wound is closed as usual with subcuticular sutures and Steri-Strips.

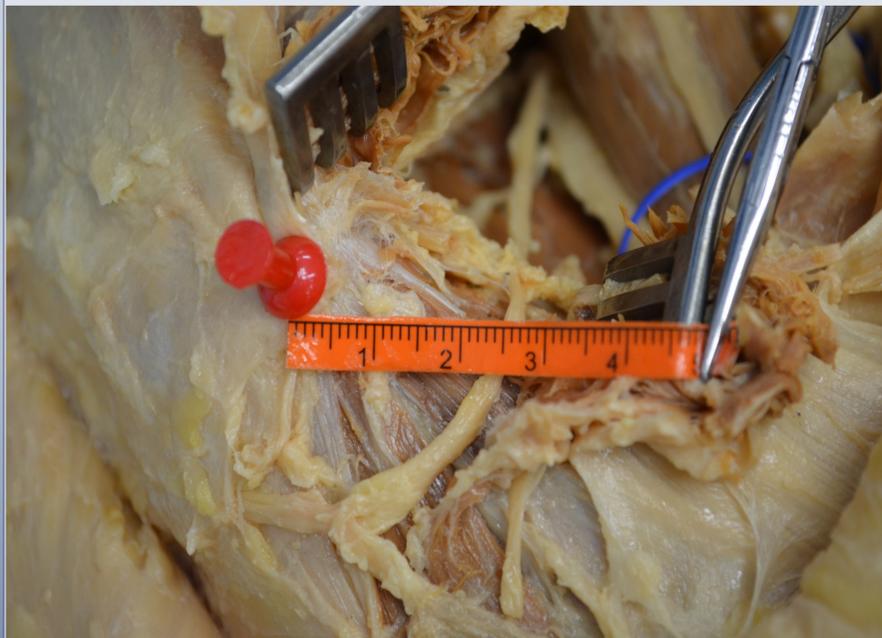
Our early patients underwent a traditional simple decompression, then we started decompressing the fascia deep to the nerve and the last few patients underwent a full transposition.

### RESULTS

Figure 1. Pre-transposition, the nerve is observed 0.5 cm from the ASIS



Figure 2. Post-transposition, the nerve is now 2.5 cm from the ASIS



It was always technically feasible to mobilize the LFCN for at least 2 cm medially (Figures 1 & 2) once the fascia underlying the nerve was opened. This also allowed a much straighter course of the nerve as it comes out of the pelvis.

Table 1. Results of our patient series for meralgia paresthetica.

Case #	Procedure	Results
1	Simple decompression	Good 1.5 mo, transection at 6 mo, pain free at 1 yr
2	Simple decompression	Pain free at 3 mo, postop numbness
3	Simple decompression	Pain free at 3 mo, postop numbness
4	Simple decompression	Better 1 mo, recur at 3.5 mo, transection at 7 mo, pain free at 3 mo
5	Simple decompression	Pain free x2 wks, transection at 5 mo, persistent pain at 7 mo
6	Deep decompression	30% better at 1 mo (declined neurectomy)
7	Deep decompression	50% better at 8 mo
8	Transposition	Pain free at 3 mo

Early patients (1-5) were treated with simple decompression, 3 of them (60%) required revision surgery with neurectomy. We then started decompressing the fascia deep to the nerve (patients 6 & 7) and then transposing the nerve (patient number 8). None of the latter three patients underwent revision surgery. We just added patient number 9 who underwent transposition with good immediate postoperative result.

### CONCLUSION

From this study we conclude that LFCN transposition is technically feasible. We have no long term data from patient outcomes. We are hoping to collect retrospective or prospective data to validate this technique and compare patient outcomes to the standard decompression, but the preliminary results are promising.