

Case Study

Does epidural infusion after epidural adhesiolysis and radiofrequency of the lumbar dorsal root ganglion improve short- and medium-term outcomes?

Claudia PAOLETTI MD*, Luigi Filippo NARDI MD** - Pain Center Villa Igea Hospital 60121 Ancona (Italy)

Bibliography

¹⁾Racz GB et Al:

Lysis of adhesions in the epidural space. In Racz GB (ed), Techniques of Neurolysis. Kluwer Academic Publishers, Boston, 1989, pp 57-72.

²⁾Vuka I et Al:

Efficacy and Safety of Pulsed Radiofrequency as a Method of Dorsal Root Ganglia Stimulation in Patients with Neuropathic Pain: A Systematic Review. Pain Med. 2020 Dec 25;21(12):3320-3343.

Background: Epidural lysis of adhesions (LOA)⁽¹⁾ and radiofrequency of the spinal root ganglion (PRFG)⁽²⁾ are commonly used in the treatment of lumbar radiculopathy caused by inflammation or other irritation of the nerve root at its origin.

Post-procedural peridural infusion of anesthetic and steroid (PPIAS) could enhance outcomes in the short and medium term (1 week /to 1 month).

The aim of this study is to evaluate how PPIAS influences short- and medium-term outcomes.

Methods: 10 patients (Tab.1) underwent a combined LOA+PRFG procedure using a multifunctional device enabled for PPIAS (AlfaMed Voyager®) (Fig.1). 5 patients (Group A) received PPIAS for 24 hours (Fig.2), while in the other 5 patients (Group B), the device was removed immediately to allow early resumption of previous antiplatelet treatment.

patient n°	sex	age	NRSbase	APT (s/n)	Group
1	F	75	8	S	B
2	F	68	9	N	A
3	M	66	7	N	A
4	F	59	7	N	A
5	M	60	9	S	B
6	F	59	8	S	B
7	F	63	7	S	B
8	M	58	7	N	A
9	M	61	8	S	B
10	F	59	7	N	A
NRS	GROUP A+B	GROUP A	GROUP B	PVALUE	
NRS T0	7,7	8	7.4		
T 1 WEEK R	60%	70%	50%	0,00057	
T 1 MOUNTH R	44,5%	45%	44%	>0.5	

NRS= numeric pain rating scale; NTRST= NRS basic value; T1WR = percent of reduction NRS at

Tab.1

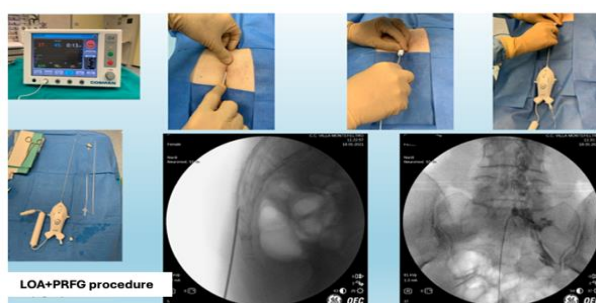


Fig. 1

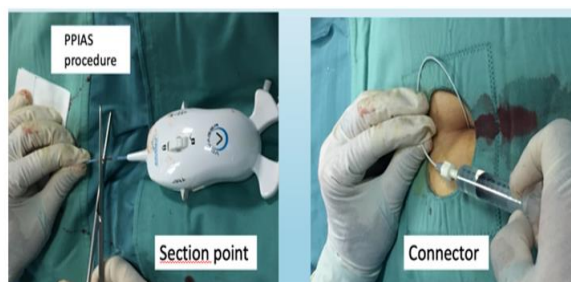


Fig. 2

Results : All patients completed the expected follow-up.

At 1 week, the NRS score was reduced by 70% in Group A and 50% in Group B (p=0.00057). However, at 1 month, there were no significant differences between the groups (45% vs. 44%, respectively).

Conclusions: In our patients, the NRS score was significantly better in Group A in the short term. Although this difference did not affect medium-term outcomes, it may facilitate post-procedural recovery and allow an earlier start of post-LOA+PRFG rehabilitation without unfavorable events. The use of a certified device that enables PPIAS provides an additional opportunity for managing patients with difficult-to-treat radicular pain.