

COMPARATIVE STUDY BETWEEN INTRA-ARTICULAR CORTICOSTEROID INJECTION AND GENICULAR NERVE BLOCK UNDER ULTRASOUND GUIDANCE IN PAIN CONTROL OF KNEE OSTEOARTHRITIS

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INTRODUCTION

Recently, genicular nerve block (GNB) was introduced as a new technique to relieve knee pain in chronic knee osteoarthritis patients. While intra-articular corticosteroid injection (IACSI) used to be a traditional treatment option to relieve knee osteoarthritis related pains. Both techniques have been used. However, whether one is superior to the other remains controversial.

AIM OF THE WORK

This study aims to investigate the efficacy of ultrasound-guided GNB and IACSI in the management of knee osteoarthritis-related pains and to determine which technique carried better results.

SUBJECTS AND METHODS

Forty patients with chronic knee osteo-arthritis were randomly treated with either genicular nerve block (GNB) (n = 20) or intra-articular corticosteroid injection (IACSI) (n = 20). Clinical response was assessed using Visual analog scale (VAS), and Oxford Knee Score (OKS) at baseline and 2, 4, and 8 weeks post procedure.

RESULTS

The VAS score and OKS score were significantly low in the GNB group and IACSI group at 2, and 4 weeks after the procedure ($P < 0.001$ for all), then returned near baseline at 8 weeks. When the two groups were compared according to changes in VAS and OKS from baseline at 2, 4, and 8 weeks, GNB group showed significant alleviation of pain ($P < 0.001$ for 2 and 4 weeks and < 0.006 for 8 weeks) and improvement in function ($P < 0.001$ for 2, 4 and 8 weeks) compared to IACSI group.

Table : Comparison between GNB and IACSI groups according to decrease in VAS from baseline

Decrease in VAS from baseline	IACSI (n = 20)	GNB (n = 20)	p
Baseline – 2week			
Min. –Max.	35 – 55	50 – 67	<0.001*
Mean \pm SD.	44.90 \pm 6.09	58.50 \pm 4.52	
Baseline –4week			
Min. –Max.	28 – 50	45 – 62	<0.001*
Mean \pm SD.	39.40 \pm 6.48	53.50 \pm 4.52	
Baseline –8week			
Min. –Max.	2 – 10	0 – 20	0.006*
Mean \pm SD.	5.60 \pm 1.93	9.25 \pm 5.37	

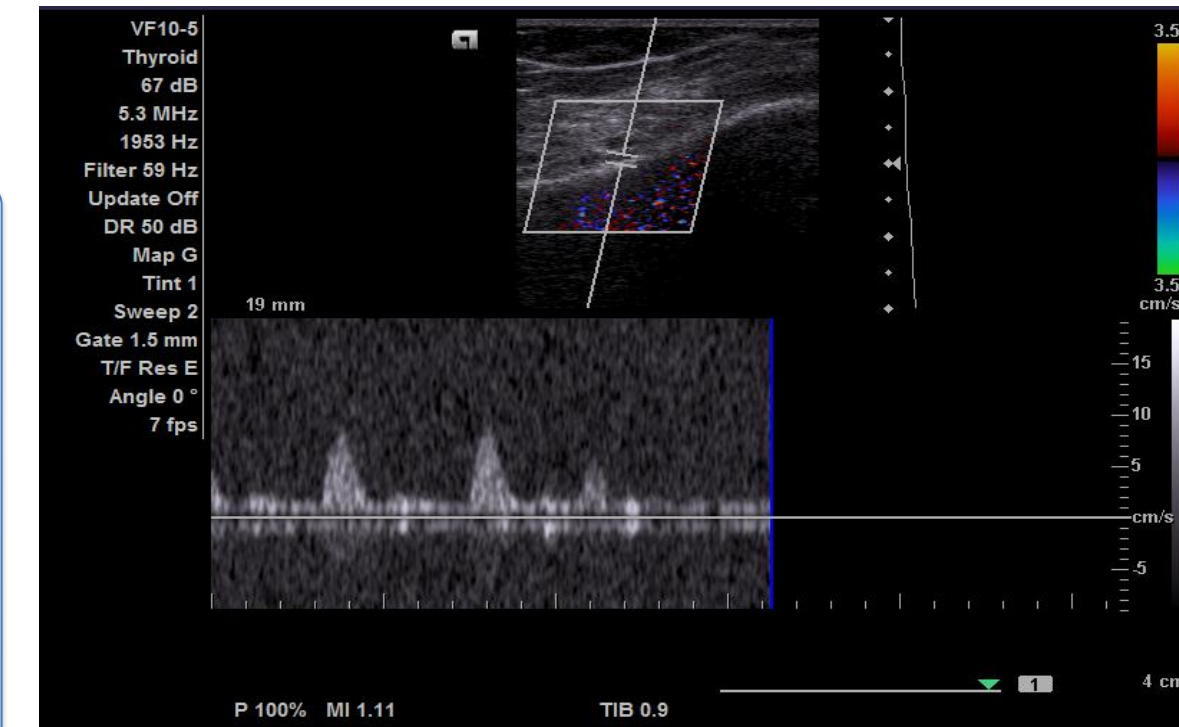


Figure: Spectral Doppler US of the supero-medial genicular artery at the junction between the epicondyle and shaft of femur showing arterial wave.

CONCLUSION

Both GNB and IACSI are effective methods to relieve chronic knee osteoarthritis-related pains. When compared to each other, GNB showed more significant pain relief and functional improvement than IACSI.