Zygapophyseal Joint Pain in Thoracic Region
-
A Proposed Method for Diagnose and Treatment

Hambræus J, M.D. **Hambræus K, R.N** Lindholm L, PhD
johan@smartkliniken.eu

Introduction

Because of the large inter-individual differences in the localisation of the nerves in the thoracic region special considerations are needed in order to achieve a repeatable test and an effective treatment. The ISIS guidelines gives examples of where the nerve could be located.

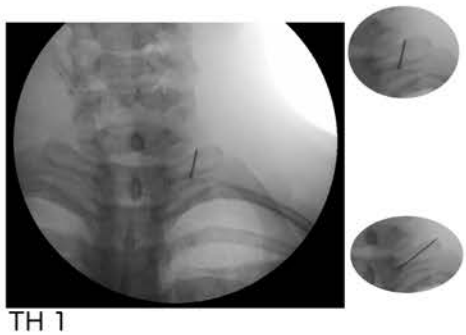
The method was evaluated by using the cervical and lumbar region as controls, and comparing the effect on health-related quality of life, HRQL.

Acknowledgement:
The method was developed in collaboration with Dr Sherdil Nath.

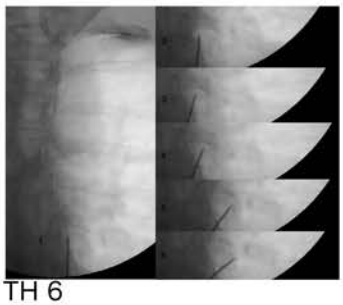
Method

MBB was performed by injecting 0.66 ml local anaesthetic close to the vertebral body and 0.33 ml at the lateral tip of the transverse process

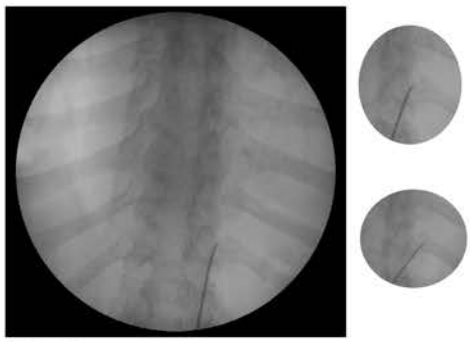
Radiofrequency start with a lesion close to the vertebral body and repeated lesions are performed until the lateral tip of the transverse process is reached. A temperature of 50 - 59 degree Celsius is aimed for at the new position. 5 - 15 lesions were performed on each nerve.



TH 1



TH 6



TH 12

Results

Health-Related Quality of Life measured by EQ-5D index

	RF-treatment	3 months	6 months	12 months
Cervical	0.319	0.549*	0.577*	0.663*
Thoracic	0.305	0.617*	0.636*	0.729*
Lumbar	0.267	0.507*	0.572*	0.555*

* p<0.0001

51% data for lumbar region, 30 % thoracic 19 % cervical.
191 patients were included

Discussion

When performing medial-branch blocks you depend on needle-contact with the bone in order to certify the position. The problem with inter-individual diversity is that you have to use a method that is reliable regardless of this diversity, i.e. a method taking into account the diversity and cover most of the different variants. The method described here full-fill these needs.

MBB by double injection

RF with multiple lesions.
Temperature determines the distance the needle is moved between lesion

Effect on HRQOL similar between cervical, thoracic and lumbar RF-treatment using this approach.

References

1. Bogduk N. Practical Guidelines. Spinal Diagnostic & Treatment Procedures. International Spine Intervention Society. 1st ed. San Francisco, CA: International spine Intervention society; 2004. 347 p.

2. Bogduk N. Practice Guidelines for Spinal Diagnostic and Treatment Procedures. 2nd edition. San Franscisco: International Spine Intervention Society; 2013.

3. Bogduk N, Dreyfuss P, Govind J. A narrative review of lumbar medial branch neurotomy for the treatment of back pain. Pain medicine (Malden, Mass). 2009;10(6):1035–45.

4. Nath S, Nath CA, Pettersson K. Percutaneous Lumbar Zygapophysial (Facet) Joint Neurotomy Using Radiofrequency Current, in the Management of Chronic Low Back Pain. SPINE. 2008;Volume 33,:1291–7.

5. Burstrom K, Johannesson M, Diderichsen F. Swedish population health-related quality of life results using the EQ-5D. Quality of Life Research. 2001;621–35.

6. Devlin NJ, Parkin D, Browne J. Patient-reported outcome measures in the NHS: new methods for analysing and reporting EQ-5D data. Health Econ. 2010 Aug;19(8):886–905.