

## Retrogasserian Thermolysis in Trigeminal Neuralgia

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**Goal:** This paper aims to analyse long term results of retrogasserian RF lesions for trigeminal neuralgia.

**Materials and Methods:** Between 1992 and 1998 a total 213 patients presented with trigeminal neuralgia were treated. Mean age was 59±13 (min 24, max 90), Male/Female ratio was 89/121. The pain was on right in 134 cases and on left in 79 cases. The distribution of the pain in divisions was: division I: 4, division I & II: 22, division II: 52, division II & III: 68, division III: 36, all divisions: 31.

Secondary trigeminal neuralgia presented in 21 cases (9,9%): The etiology of trigeminal neuralgia was attributed to multiple sclerosis in 8 (3,8%), cerebellopontin angle tumor in 5 (2,3%), vascular lesions in 4 (1,9%), blood disorders in 2 (0,9%), basilar invagination and Chiari syndrome in 1 (0,5%), arachnoid cyst in 1 (0,5%)

Trigeminal neuralgia was accompanied with hemifascial spasm in 4 (1,9%), with hemifascial spasm & tinnitus in 1 (0,5%). Bilateral trigeminal neuralgia presented in 7 patients (3,3%).

The technique we used was performed under fluoroscopic control and division specific lesions by radiofrequency thermocoagulation at 75 degree centigrade for 60 seconds. During RF lesions IV diprivan anesthesia was applied.

**Results and Discussion:** We examined 116 patients with more than 5 year follow ups and total application of 142 RF rhizotomies. Initial success rate was 98%. Recurrence rate was 15%. Recurrence interval was on average 18 months (1-36) Number of RF applications in this group was one time only in 93 cases, 2 times in 20 cases, 3 times in 3 cases.

Complications were transient 6th nerve palsy in 2, carotid artery puncture in 1, anesthesia dolorosa in 1. There were no death and no significant morbidity.

**Conclusions:** Retrogasserian RF thermolysis for trigeminal neuralgia is an easy and non-ambulatory technique which allows division specific pain relief with very high success rate and small number of reversible complications.

## Posterior Surgery for Kyphosis

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**Goal:** Kyphosis as a sagittal spine deformity causes pain and significant disability. The etiology may be ankylosing spondylitis, Scheurmann's disease, Pott's disease, osteoporotic compression fractures. This paper aims to analyse the technique used to correct severe kyphosis by a posterior only surgery.

**Materials and Methods:** Between 1998 and 2008 a total of 44 patients with kyphosis were surgically treated. The reason of kyphosis was ankylosing spondylitis (17 cases), Scheurmann's disease (3 cases), congenital spinal anomalies (12 cases), Pott's disease (5 cases), posttraumatic kyphosis (7 cases).

21 cases with thoracic and lumbar kyphosis were operated with a posterior only approach using wedge osteotomy technique. 3 cases with cervicothoracic kyphosis were operated with an osteotomy in at C7-T1 level, since that level has no problem with vertebral artery. Reduction was achieved with traction and head deflexion.

**Results and Discussion:** Significant reduction could be achieved in 37 cases. Neurological deficits did not worsen in patients with preoperative deficits. Hardware failures, loss of correction, CSF leakage and infection were most frequent complications. There were no neurological complications.

Anterior surgery is indicated in thoracic kyphosis more than 70 degrees, and kyphosis with neurologic deficits. A posterior wedge osteotomy is indicated for long curvature thoracic kyphosis, short curvature thoracic kyphosis between 30-70 degrees and lumbar kyphosis more than 20 degrees.

**Conclusions:** Kyphosis can easily and effectively be reduced by a posterior only approach in many types of kyphosis. Since they have no neurological deficits, the patients with ankylosing spondylitis are most suitable for this surgery. In lumbar kyphosis one level wedge osteotomy (especially at L1 or L2 levels) or egg-shell procedure is appropriate. In thoracic kyphosis multilevel wedge osteotomies should be preferred. In cervicothoracic kyphosis an osteotomy at C7-T1 level should be the procedure of choice.