EVALUATION OF EPIDUROPLASTY BY RACZ CATHERER IN POSTLUMBAR LAMINECTOMY SYNDROME WITH AND WITHOUT EPIDUROSCOPY

Ahmed F. El Molla, MD (Egypt), FIPP(USA), P.Gcert. (UK).

Professor of Anesthesiology & Chief of Pain Relief Unit, Medical Research Institute, Alexandria University, Egypt.

Table 1. Protocol of Epiduropathy.

<table>
<thead>
<tr>
<th>Group</th>
<th>Group A</th>
<th>Group B</th>
<th>Group C</th>
<th>Group D</th>
<th>Group E</th>
</tr>
</thead>
<tbody>
<tr>
<td>epiduroplasty</td>
<td>25 (20-30) mg/ml</td>
<td>15 (10-20) mg/ml</td>
<td>25 (20-30) mg/ml</td>
<td>15 (10-20) mg/ml</td>
<td>25 (20-30) mg/ml</td>
</tr>
<tr>
<td>lumbar level</td>
<td>30%</td>
<td>30%</td>
<td>30%</td>
<td>30%</td>
<td>30%</td>
</tr>
<tr>
<td>height (cm)</td>
<td>170 (165-175)</td>
<td>170 (165-175)</td>
<td>170 (165-175)</td>
<td>170 (165-175)</td>
<td>170 (165-175)</td>
</tr>
</tbody>
</table>

**EVALUATION OF EPIDUROPLASTY BY RACZ CATHERER IN POSTLUMBAR LAMINECTOMY SYNDROME WITH AND WITHOUT EPIDUROSCOPY**

**Abstract**

Epidural Steroids have been implicated in persistent pain after back surgery. Epiduroplasty is assumed for targeted epidural medication delivery nearby the desired nerve root may result in better relief. The primary goal of this study was to evaluate the efficacy of fluoroscopic-guided epiduropathy with and without epiduroscopy (EDS) in llated back surgery syndrome (FBS).

FBS patients were allocated randomly into two groups: the NON-EDS group in whom patients underwent caudal epiduroscopy by fluoroscopic-guided insertion of Racz catheter and the EDS group in whom patients underwent epiduroscopy by fluoroscopic-guided epiduroplasty. The primary outcome was measured by visual analog scale for chronic radicular leg pain and functional activities were assessed using Oswestry disability scale and then with a follow up to 6 months the treatment was observed at each visit.

There was significant reduction in leg pain score (P<0.01) at 1, 3, and 6 months compared to the pre-procedure values in both groups. Also, there was significant reduction in leg pain score in EDS group at 3 and 6 months compared to the pre-procedure values. There was no significant difference in pain relief between epiduroscopy and epiduroplasty groups. Those results showed statistical significant improvement (P<0.01) at 3 and 6 months in both groups. No complications were noted, and side effects were minor.

Epiduroplasty by fluoroscopic-guided insertion of Racz catheter with epiduroscopy assistance is more effective in reduction of non-segmental unilateral radicular leg pain and improvement of functional abilities with good satisfaction and minimal side effects in FBS.

**Keywords:** Epidural Steroids; Racz catheter; Epiduroplasty; FBS (failed back syndrome surgery)

**Results**

There were no patients missed in the follow up period. Patient’s characteristics and clinical data were comparable in the studied groups (Table 2).

**Follow-up protocol** (period of 1, 3, 6 & mon)

6 months was measured by visual analogue scale (VAS) for monosegmental unilateral leg pain and functional activities were assessed using Walter and Main score with a follow up to 6 months whereas, satisfaction was observed at 3 and 6 months. Success was defined as a reduction of VAS-leg of at least 30%.

Post-procedure neurological monitoring (sensory and motor) was done using neurological examinations and electric studies. A single non-regular independent physician or pain nurse, who was familiar to the technique, monitored the follow up assessment. An epiduroplasty after 6 months of data was done to assess the degree of adhesions in a qualitative manner.

**Conclusion**

In conclusion, Epiduroplasty by fluoroscopic guided insertion of Racz catheter via epiduroscopy is more effective in reduction of mono-segmental unilateral radicular leg pain and improvement of functional abilities with good satisfaction and minimal side effects in FBS.