Cervical Endoscopic Discectomy

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Citation

Abstract
Anterior approach for the cervical spine has been sought since the 19th century. Now minimally invasive (MI) surgical techniques have revolutionized the way spine surgeons treat herniated discs. Our MI anterior cervical discectomy (ACD) technique without fusion was performed on 396 patients who had mostly soft disc herniations - 160 males, 236 females (average age 41.5). Twenty nine of the 396 patients also had platelet gel after discectomy.

Selection criteria was based on symptoms consistent with radiologic findings for >3 months, discogram for difficult or multi-level cases & a favorable response to traction. Operating room (OR) instruments included discogram kit, fluoroscopy to confirm position, disc removal instruments, Holmium laser & LASE endoscopic catheter. OR set-up requires a radiolucent table, C-arm, X-ray & endoscopic monitors. Patients were placed in the supine position with cervical role, arms at side with wrist traction. Local anesthetic with I.V. sedation was required. With suction DRI about 1cc of disc was collected, 500-800 kilojoules used.

Average follow-up was 11.7 months with overall 88.4% good/ excellent results. Average surgical to discharge time was 3.2 hours. Operated levels included C3-4 to C7-T1 (C5-6 most common) with 313 initial single level & 88 initial multi-level discectomies. Three patients had complications; 1 patient had reaction to anesthesia twice & 2 patients had vascular complication needing emergent airway- hematoma evacuation without vascular repair. Overall, 9 patients had additional level discectomies, 14 patients went on for fusions at same level, 10 had prior fusions & 29 required revision surgery. Of the 29 subset platelet gel patients, they had a 96% good/excellent result. Four patients who required a revision had platelet gel added, one at an additional level.

Minimally Invasive Cervical Endoscopic Discectomy without fusion has a low complication rate, fast operative to discharge time and satisfactory functional results. And based on beneficial results with platelet gel, all patients received injection of platelet gel since summer 2006.

References
12. Coventry MB, Ghormley RK, Kernohan JW: The
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