Cervical Nucleoplasty Now Offered for Cervical Disc Herniations

Dr. Mortazavi has recently begun offering percutaneous cervical nucleoplasty or disc decompression for patients suffering from neck or arm pain related to contained cervical disc herniations. A recent study published in Acta Neurochir Suppl. 2005; 92:73-78 supports the clinical effectiveness of the procedure. Conventional open cervical discectomy, with or without bony fusion, in common neurosurgical knowledge is considered to be the standard treatment for cervical disc herniation. Percutaneous procedures are minimally invasive and offer decreased morbidity, require no bone graft, and promise shorter recuperation time.

Patients must have contained disc herniations to be considered candidates for treatment with cervical disc nucleoplasty (Fig 2). Patients with ruptured or extruded disc fragments require neurosurgical attention as well as those with significant neurological deficits. As with open surgery, patients with primarily radicular arm pain have better treatment responses than those with primarily axial neck pain.

The Disc nucleoplasty™ procedure uses bipolar radiofrequency energy in a process referred to as Coblation technology. The technique consists of small, multiple electrodes that emit a fraction of the energy required by traditional radiofrequency energy systems. The result is that a portion of the nucleus material (approximately 1 cc) is ablated with non-thermal mechanisms. Molecular bonds within the tissue are broken and several small channels are created within the disc in the hopes of retraction of the disc herniation (Fig 1).

The procedure is performed on an outpatient basis under moderate sedation. Pain relief occurs within 1-2 weeks and recuperation time is minimal.

For Information and Referrals:
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