A CASE REPORT OF INTRADURAL HERNIATED DISC:

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A report of an intradural herniated lumbar disc, rarely report condition, not covered in many text-books but causes disabling neurological deficit, which may need urgent surgical intervention for good motor recovery.

CASE REPORT:

A 35 year old previously healthy J.C.O. developed severe backache, bilateral sciatica and weakness of both lower limbs without bladder and bowel functions disturbances following rolling a heavy stone. He attended local district hospital and was diagnosed as a case of transverse Myelitis and treated with steroids but without any benefits. Patient reported to Orthopedic OPD of Birendra Hospital where he was admitted and treated conservatively for 8 weeks but patient's symptoms remained unchanged therefore he was referred to Surgical OPD with M.R.I. scanning of lumber spine on hand for opinion. Patient was examined in Surgical OPD and requested lumber myelography to see herniated intervertebral disc. Lumber myelography demonstrated large mass lesion which compressed the cauda equina. As the myelography findings were not classical for herniate lumbar disc no definitive diagnosis was made. Requested expert opinion from Senior Neurosurgeon but opinions were divided between tumor and intradural herniated disc. All agreed about surgical exploration and consent was obtained from patient for exploration.

Surgical exploration was performed applying a complete liminectomy with adequate bilateral exposure. On operation no extradural compression was found. Disc space was entered at mass lesion level and small amount of disc materials was found. A hard mass lesion was palpated inside the dura. Dura was incised, nerve roots were secured and mass was excises. Both specimen i.e. removed mass and intervertebral disc material were sent for histopathological examination. Patient made uneventful postoperative recovery. Result of surgery was good. Now, patient is performing regular army duties without difficulties. Histopathological diagnosis of both specimens was Degenerated disc material.

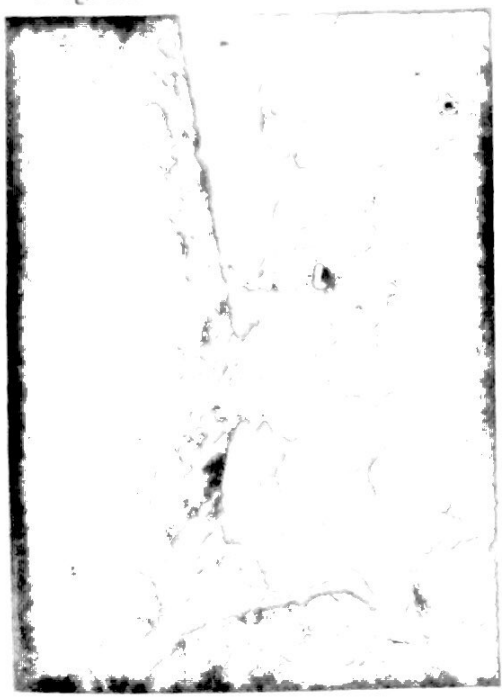

Fig 1 Lumbar Myelography

Fig 2. M.R.I. Lumbar spine

DISCUSSION:-

Prolapsed intervertebral discs are commonly, extradural in location. Modern imaging techniques are very helpful for accurate diagnosis of prolapsed intervertebral dis. In some occasions, even with the use of modern imaging techniques certain lesions such as intradural disc herniation may cause diagnostic confusion. Before discussing the likely pathological processes of intradural herniatio. Intervertebral disc protrusion apropriate to explain the common types of disc herniation. Intervertebral disc protrusion is produced by the effect of flexion forces acting upon the most mobile portion of the spine.

Nucleus pulpous may be pursued rostrally or causally through a crack in the cartilaginous plate into the vertebral body. These so called Schmorl's nodes can be seen on radiological studies. In itself, it had no clinical significance.

The nucleus pulposus is eccentrically situated toward the posterior end of the intervertabral disc and the annulus fibrosus is therefore narrower and disc somewhat thinner posteriorly. Degenerated disc material most commonly bulges posteriorly, through rents in the annulus gibrosus and usually, posterolateral to the most peripheral strands of the psterior logitudional ligament. Therefore, most herniated discs occur in a posterolateral position. Occasionally, significant disc herniation may occur near the mid line. Ordinarily it occurs immediately to one side of the mid line. Such a paracentral disc herniation can obstruct the major portion of the spinal canal. Far lateral or extraforaminal disc herniation occurs in certain instances. It is important to recognize this entity on the preoperative scan. Not diagnosable by plain myelography, it is ordinarily evident of the C.T. or M.R.I. scan as a mass lateral to the foramen on the axial views. The strong posterior logitudional ligaments in the mid line cause most disc hernations to occur laterally, in other words, to one side. Disc herniations rarely affect both legs, the painful syndrome is in the vast majority of instances unilateral e.g.right or left not both. Mid line bulging of disc occurs so commonly that it should hardly be considered pathologic. Lateral views on myelography as well as C.T. and M.R.I. scans that demonstrate disc bulging usually do not indicate a likely benefit from surgery by few central protrusions that occur are important because they can produce paraplegia with sphincter involvement and these lesions need urgent surgical intervention.

In time, further tearing of the fibres of the posterior annulus connective tissue results in escape of degenerated nucleus pulposus material into the spinal canal which may impinge upon the spinal cord or a root in the intervertebral foramen as it exits the dural sac. A herniated'intervertebral disc may, on occasion transgress the dura to occupy in intradural location.

The surgical management of herniated disc in such rare occasions, a special approach is necessary, similarly in a very large central disc herniation or when the diagnosis is uncertain standard micro-surgical techniques are not beneficial. In these instances, a hemilaminotomy may not provide sufficient exposure for management of the problem. In the first situation, limited bone removal may not allow for adequate exposure and retraction of the dura and many result in injury of the cauda equina. A complete laminectomy permits adequate bilateral exposure and safe retraction of the neural elements, if necessary, allows intradural exploration as well. Although, microdiscectomy is the method of choice for the surgical management of herniated disc but in few situations complete laminectomy may be the method of choice for surgical management of herniated disc.

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