

**DIAGNOSTIC X-RAY CONSULTATION SERVICES®**

GARY A. LONGMUIR, M.App.Sc., D.C., Ph.D., D.A.C.B.R.  
Radiology

*Diplomate, American Chiropractic Board of Radiology  
Fellow, the American Chiropractic College of Radiology*

2525 W. Carefree Highway, Building 2A, Suite 114  
Phoenix, AZ 85085-9302  
Telephone: (602) 274-3331  
Fax: (602) 279-4445  
[www.diagnosticx-ray.com](http://www.diagnosticx-ray.com)

Patient's Name: XXXXXXXX XXXX

Referred by: Dr. X XXXXXXXX

Examination: Cervical spine MRI without contrast.

Date Taken: 2/22/16

Date of Report: 2/22/16

Patient's Complaint: Cervical radiculopathy.

Patient's History: No recent trauma reported.

Protocol: Sagittal T1-weighted, T2-weighted and axial gradient echo images of the cervical spine were obtained in the seated posture.

Findings:

MRI examination of the cervical spine reveals the vertebral bodies to be of normal height, without acute fracture. Type I subchondral degenerative signal alteration (low signal T1, high signal T2) is present at the inferior C4 and superior C5 vertebral margins. Decreased signal is noted throughout the cervical disks on the T2 weighted images, compatible with desiccation. Moderate decreases of disk height are appreciated at C4-C5, C5-C6 and C6-C7. The cervical spine is hypolordotic. Vertebral body alignment is otherwise unremarkable. The atlantodental interval is within normal limits. Small osteophytes are identified at the anterior C4 through C6 vertebral margins.

A broad-based disk/osteophyte complex is evident at C3-C4 mildly flattening the ventral aspect of the cord. Mild bony narrowing of both neuroforamina is present. Subarachnoid bony hypertrophic changes are noted at C4-C5 with a superimposed right paracentral disk protrusion measuring 6.0 mm anteroposteriorly with substantial mass effect upon the ventral aspect of the cord. The central canal measures 4.5 mm anteroposteriorly at midline and 2.2 mm at the right paracentral aspect. A focal alteration of increased cord signal is evident on the T2 weighted images at C4-C5, measuring 14 mm in length and extends from the posterior aspect of the protrusion to the posterior aspect of the cord. Bilateral facet arthrosis is appreciated, appearing more advanced on the left. There is moderate and advanced bony narrowing of the left and right neuroforamina, respectively. A broad-based disk/osteophyte complex is noted at C5-C6 flattening the ventral aspect of the cord. The central canal measures 6.3 mm anteroposteriorly at midline. There is advanced bony narrowing of both neuroforamina and bilateral facet arthrosis. A broad based disk/osteophyte complex is appreciated at C6-C7 mildly lateralizing toward the right, minimally effacing the ventral aspect of the cord.

XXXXXXXXXX XXXX, (Cont'd)  
Dr. X XXXXXXXXX  
2/22/16

Findings, Cont'd:

There is severe bony narrowing of the right neuroforamen with bilateral facet arthrosis appearing advanced on the right side. The cerebellar tonsils are normally located.

Impressions:

1. Moderate degenerative disk disease, subchondral marrow signal alteration and osteophyte formation as described.
2. Broad-based disk/osteophyte complex at C3-C4 mildly flattening the ventral aspect of the cord. This is complicated by mild bony narrowing of both neuroforamina.
3. Subarachnoid bony hypertrophic changes at C4-C5 with a superimposed right paracentral disk protrusion measuring 6.0 mm anteroposteriorly with significant mass effect upon the ventral aspect of the cord and severe stenosis of the central canal. Cord ischemia with myelomalacia are suggested. There is bilateral facet arthrosis with moderate and advanced bony narrowing of the left and right neuroforamina, respectively.
4. Broad-based disk/osteophyte complex at C5-C6 flattening the cord, ventrally. The central canal measures 6.3 mm anteroposteriorly and there is advanced bony narrowing of both neuroforamina. Bilateral facet arthrosis is present.
5. Broad-based disk/osteophyte complex at C6-C7 mildly lateralizing towards the right, minimally effacing the ventral aspect of the cord. This is complicated by severe bony narrowing of the right neuroforamen and bilateral facet arthrosis, appearing more advanced on the right.

Clinical Comment:

Interprofessional referral for a neurosurgical consultation is strongly recommended.

  
G.A. Longmuir, DC, DACBR