

## MRI OF THE CERVICAL SPINE AND CORD USING 3.0 TESLA MRI SCANNER AT ZILKHA RADIOLOGY

MRI of the cervical spine produces detailed images of the cervical spine, spinal cord, nerves and discs and the adjacent soft tissues.

MRI of the cervical spine can help diagnose **disc herniation (Figure 1)**, disc degeneration, spinal canal stenosis, fractures and subluxation.

Tumors of the spinal cord, nerves and adjacent soft tissues can be evaluated with exquisite details. Here is an example of a **Schwannoma (Figure 2)**, a benign tumor that originates from Schwann cells that surround the nerve fibers. Its extent is clearly evaluated with MRI.

MRI is the most sensitive diagnostic modality for diagnosing **multiple sclerosis of the spinal cord (Figure 3)**. It is often associated with concomitant brain lesions. However, as many as 20% of patients with spinal cord lesions do not have co-existing brain lesions.

Patients with **Chiari malformation Type I** is related to brain tissue protruding into the spinal canal called cerebellar tonsils herniation (**Figure 4, arrow**). The symptoms are not apparent until late childhood or adulthood. It results in hydrocephalus (large ventricles) and/or syrinx (cavity) in the cervical cord (**Figure 4, arrows**). The most common symptom is headaches.

Occasionally a **lung nodule** is detected on the coronal cervical spine images which are part of the protocol used at Zilkha Radiology (**Figure 5**). In such instance, a PET/CT is recommended and may reveal FDG activity in the nodule (**Figure 6**). This implies a possible malignancy. This patient had surgery and the nodule was removed revealing a contained small cancer without metastatic disease.

Other diseases that can affect the cervical spine are traumatic spinal cord lesions, infection, myelitis, congenital lesions, etc.

Zilkha Radiology has a 3.0 Tesla ultra high field MRI scanner in each of our offices. The 3.0 Tesla scanner provides excellent image quality and superb diagnostic images.

For your convenience we are open 7 days a week, 7:30am-10pm Monday thru Friday and 8am-4pm on Saturday and Sunday.

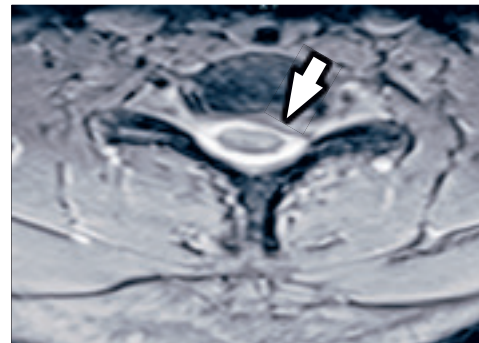


FIGURE 1



FIGURE 4

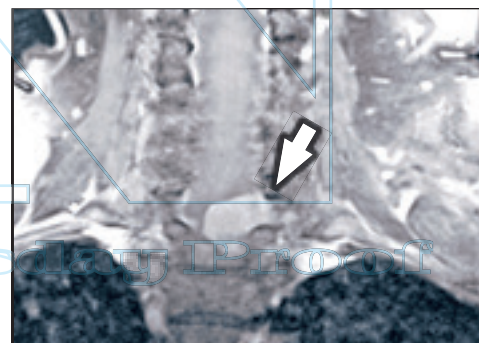


FIGURE 2



FIGURE 5

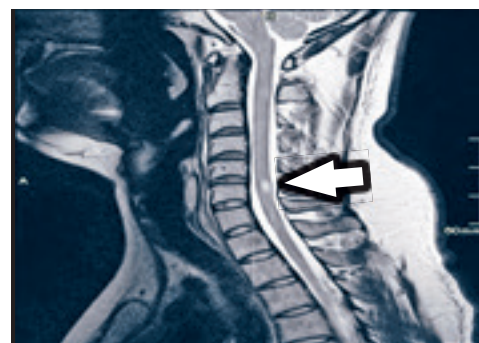


FIGURE 3



FIGURE 6