

## Case Report

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A newborn male developed a head tilt during the first week of life. The cause was attributed to neck trauma during delivery and the parents were told that the problem should resolve during the next few months. The problem persisted, and when the child was four-months-old his parents took him to a chiropractor for further evaluation. Reportedly, the child underwent spinal manipulation which included cervical flexion, extension, and axial loading and unloading. On the day following the treatment, the child was apparently difficult to arouse and was described as limp, pale, and moaning. The parents took the child back to the chiropractic clinic for further evaluation. Following a second manipulative procedure the child apparently began to moan and grunt continuously and feeding was difficult. Three hours later, the child was admitted to a hospital for further evaluation. At this stage, the child had a fever (39.3°C), tachypnea (40 breaths/min.), tachycardia (160 beats/min.), and a systolic BP (98 mm Hg). One tympanic membrane was reportedly inflamed and the child was started on antibiotics. The following day the child had several seizures and was considered to have possible meningitis; medication was administered but no spinal tap was performed. Later, the child was transferred to another hospital where neurologic examination revealed a unilateral sensory deficit in the cervical region (response to pin prick). Chest x-ray showed spinal canal enlargement from C-3 to T-8. MRI scan of the spine showed a tumor present from the medulla oblongata to the lower thoracic region. An extensive laminectomy was performed from C-3 through T-8 and a large astrocytoma was resected. Normal spinal cord tissue remained in the cervical and upper thoracic regions, but no spinal cord tissue was present in the mid thoracic region, suggesting total invasion of that area by the tumor. Following the surgery, motor and sensory function was present to the T-4 spinal level. Eighteen months post-operatively, the child has full use of the upper extremities, sensory function to the T-9 level, and some motion of the right leg. For a detailed description of this case, refer to *Journal of Pediatrics*, 20(2): Part 1, February 1992.

### Discussion

The most common causes of torticollis in infants include:

- trauma to the sternocleidomastoid muscle (SCM) at birth resulting in a palpable fibrotic mass in the involved SCM; and
- trauma to the upper cervical spinal complex which usually resolves within a week or two.

As discussed in the last column (March 21 issue of "DC"), subluxation to the upper cervical spine is now widely accepted throughout the medical literature as a cause of acquired torticollis. It should be no surprise to report that many patients with torticollis present to chiropractic clinics. Most of these cases resolve in less than a week, with the various chiropractic techniques which can be applied to correct the upper cervical spine. Spinal manipulation therefore would seem to be an appropriate approach for acquired torticollis, especially when associated with subluxation of the upper cervical complex (occiput-C1, C1-C2).

What makes this case noteworthy is that the underlying problem was a rather rare spinal cord tumor. A rare, yet recognized cause of torticollis.

While it is true that some cases of torticollis persist for longer periods, it is strongly recommended that cases which last longer than two weeks should be radiographically evaluated. Taking this step to diagnose the precise cause of a case of torticollis should help to determine the precise etiology, or at least rule out evidence of pathology or congenital anomaly before proceeding to adjust any involved spinal areas.

It is wonderful to have 20/20 vision in hindsight, but there is a powerful message in this case, and that is -- x-raying kids is appropriate management and should be routinely performed in all cases of persistent torticollis, before manipulating the spine.

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