

## Subdural Lipoma of Cauda Equina

### —A case report—

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Lipomatous tumors of the central nervous system are generally considered as maldevelopmental origin. They can occur anywhere along the entire neural axis. Lipoma of the spinal cord is rare benign tumor occurring predominantly in cervical and thoracic cord. The incidence was reported 1% of all primary intraspinal tumors.

The first intramedullary lipoma in conus of spinal cord was reported by Gower in 1876. Review of literature concerning intradural lipoma done by Ehni and Love (1945) listed 29 cases until 1945. Caram et al collected 51 cases until 1957 and recently Giuffre listed 100 cases of this tumor in 1966.

The case presented here is a surgically removed subdural lipoma arising in cauda equina. The surgical removal was very difficult because of infiltration into the cord and entangling with nerve roots.

### CASE REPORT

The patient was a 23 year old male, with chief complaints of back pain radiating to the left hip and testis. He was hit by a car at lumbar area in April 1977. The back pain persisted there often exaggerating occasionally since then. However, he enjoyed his normal life until May 1978, when he could no longer keep sitting position more than 10 minutes because of aching

back pain. In June 1978, back pain became radiating to the left hip and testis. He also had loss of power in the left ankle and walking disturbance. He was admitted to the Army Field Hospital, where a myelography revealed suspicious tumor shadow in cauda equina. Total laminectomy of L<sub>3-4</sub> was done only for decompression and biopsy. But the biopsy specimen revealed only dense fibrocollagenous tissue. No specific diagnosis could be made. He was transferred to the 51st Evacuation Hospital in August 1978.

On physical examination, he was moderately developed and nourished male with BP 120/70 mm Hg., pulse rate 72 per min., respiration rate 20 per min., temperature 36.5°C. A surgical scar in lumbar region was seen. No dermal dimple was found in the back. On neurological examination, disturbance of dorsiflexion of left ankle and toe, and limitation of motion in the left lower extremity were demonstrated. There was no detectable sensory change. Tenderness on 5th lumbar and the 1st sacral areas were present. Laboratory findings including complete blood counts, urinalysis, liver function tests were within normal limits. Cerebrospinal fluid was clear, and protein content was 50mg%. Chest X-ray film was unremarkable. However, simple AP lumbar view revealed enlargement of vertebral canal at the level of L<sub>3-4</sub> (Fig.1). On myelography subarachnoid space of L<sub>2-4</sub>

적후에는 대소변 보행장애 및 심전반사 소실과 L<sub>3</sub>신경의 근손상으로 인한 감각과 운동신경장애가 있었으나 물리치료후 감각장애는 남아있었으나 보행도 가능하게 되었다.

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### LEGENDS FOR FIGURES

- Fig. 1.** Lateral view of lumbar vertebra revealing an enlargement of vertebral canal and scalloping of L<sub>3-4</sub>.
- Fig. 2.** Myelography reveals enlarged spinal subarachnoidal space of L<sub>2-4</sub> and a centrally located tumor mass.
- Fig. 3.** Operation photograph showed extent of an elongated subdural lipoma from upper margin of L<sub>2</sub> to L<sub>5</sub> with slight bulging to the right side.
- Fig. 4.** A round and well encapsulated subdural lipoma, measuring 4.2×2.0×4.0cm. that was totally extirpated.
- Fig. 5.** Microscopically the tumor is composed of mature fatty tissue with interlacing collagen bundles.

