

Case 4

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Clinical Abstract:

This 40 year old female started to develop, 18 months prior to her death, some mild thoracic back pain which was rapidly followed by flaccid paraplegia, first of the lower extremities but within three weeks also with weakness of the upper extremities. There is no significant previous medical history. She worked at the time as an aide in a nursing home. There is no family history (parents, sibs, husband, children) of neurologic disease, apart from a brother who died from a ruptured aneurysm. Investigation at the time of the initial illness (CT scans, MRI, myelography in addition to the usual laboratory workup) did not resolve the issue. The differential diagnosis was multiple sclerosis (the spinal fluid findings, mild elevation of the proteins only mild increase in immunoglobulins, no oligoclonal banding, cell counts normal, were not supportive), intramedullary neoplasm, a paraneoplastic syndrome (a repeated search for occult neoplasm was negative and no tumor was found at the time of the autopsy) and transverse myelitis. The further course will be summarized:

1. After a period of paraplegia with bilateral Babinski, motor and sensory function below the waist ceased entirely. In the upper extremities weakness of all muscle groups during her next to last admission a few weeks before her death was rated at 2 out of 5.
2. Repeated myelograms did reveal, about 6 months after the onset of the first symptoms, perhaps some enlargement of lower cervical cord, with a mild increase in signal seen in the MRI. A laminectomy was performed, the cord did indeed seem somewhat swollen. A small biopsy was obtained from the periphery which was read as showing gliosis.
3. She did show some decrease in mentation of uncertain significance since she was often (decubitus, urinary tract infections, pneumonia) very ill. On her last admission paralysis was total from C3 on down.
4. There were questionable visual field losses which at first improved. There were no changes in the eye grounds at first but during the last admission optic atrophy was noted.
5. The autopsy revealed aspiration pneumonitis.

At the time of autopsy the cerebrum, cerebellum and most of the brainstem were normal; there are however some histologic changes of the same nature as those noted in the spinal cord in the optic tracts (the optic nerves or chiasm were not available). The spinal cord was involved over its entire length although the involvement in the lower portions was much more severe than in the upper portions. There was also evidence of a small cavity with macrophages and the like at the site of the prior surgery from which no section is submitted.

Material submitted:

- 1 section Hematoxylin Eosin
- 1 section Phosphotungstic Acid Hematoxylin, counterstained with Chlorantine Fast Red
- 1 unstained section