Spinal epidural lipomatosis

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Spinal epidural lipomatosis, a condition characterised by abnormal accumulation of unencapsulated epidural fat, has been regarded in the literature as a consequence of the administration of exogenous steroids associated with a variety of systemic diseases, endocrinopathies, and Cushing's syndrome [1, 2]. Occasionally, spinal epidural lipomatosis may occur in patients not exposed to steroids or suffering from endocrinopathies [2]. Obesity has been attributed as a common feature in some of these patients, and in some the disease was considered to be "idiopathic" [3]. We report on two patients with symptomatic lumbar spinal lipomatosis.

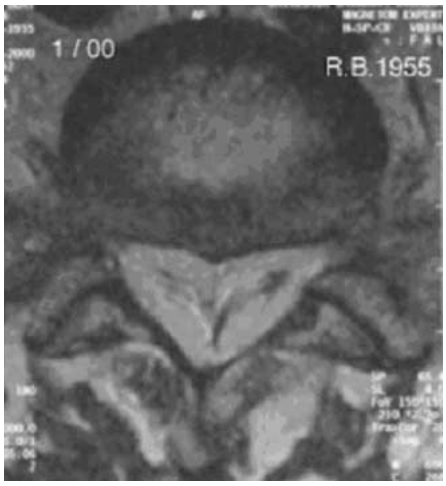

Figure 1

Patient 1: MRI of the lumbar spine reveals the typical stellate configuration of the caudal dural sac.

Steroid dose, frequency, and duration of administration are factors determining the development of iatrogenic spinal epidural lipomatosis [1]. Our first patient has been treated with 5 mg prednisone daily for the last eight years for allergic reactions to milk proteins. This dose is considerably lower than the dose of 30 mg/d taken orally over several months required for the development of spinal lipomatosis, as has been suggested by Georges and co-workers [4]. Our second patient was obese and had idiopathic or obesity-related spinal lipomatosis. In the literature 46 patients with idiopathic or obesity-related spinal epidural lipomatosis have thus far been reported.

In most reported cases, including ours, the onset of symptoms is gradual with slow progression of neurological features such as mono- or polyradicular compression signs. These symptoms are due to direct compression of the intraspinal neural structures and the venous engorgement which has been clearly demonstrated in CT or MRI studies. Circumferential compression of the thecal sac, referred to as the "Y-sign", is pathognomic in lumbar axial imaging [5] (fig. 1). Epidural lipomatosis should be differentiated from primary or secondary spinal tumours, abscesses, and spinal canal lipomas.

The natural history of obesity-related or idiopathic spinal lipomatosis is unknown. In steroid-related lipomatosis discontinuation of steroid administration will resolve hypertrophic fat deposits in the epidural space [6]. Depending on the severity of clinical symptoms, trial therapy with weight reduction and/or reduction of steroid therapy is the treatment of choice. In severe cases with progressive neurological compression signs, decompressive spinal surgery is indicated [3]. Our patients suffered from progressive cauda equina syndrome. Laminectomy and reduction of fatty tissue by ultrasonic aspirator is our preferred treatment. After 12 and 14 months' follow-up our short-term results are promising, with both patients remaining asymptomatic.

For a better understanding of spinal epidural lipomatosis further studies are necessary to determine patients at risk, the natural evolution of the disease and the appropriate treatment modalities for the best clinical outcome.

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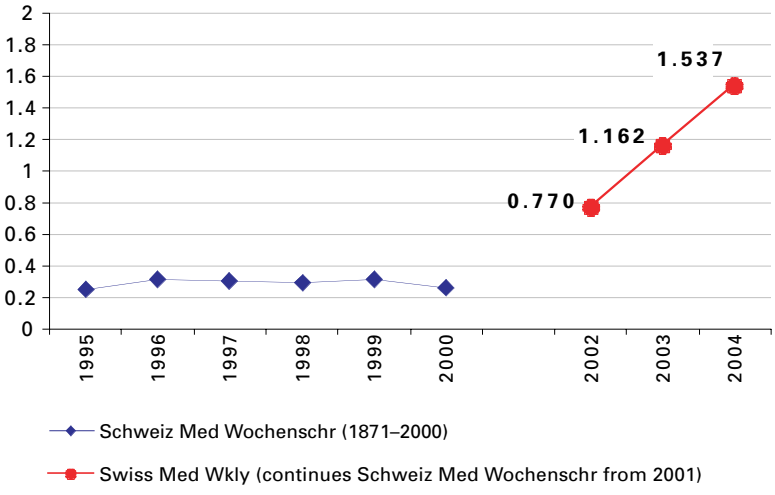

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