SUBARACHNDİD HAEMORRHAGE DUE TO A SPINAL TUMOUR

Ümit Acar M.D., Tansu Mertol M.D., Cengiz Özdemir M.D.,

Dokuz Eylül University, Medical Faculty, Department of Neurosurgery, İzmir - TÜRKİYE

Turkish Neurosurgery 2 : 162-164, 1992

ASBTRACT

A 14 year old patient admitted to the neurosurgical clinic as subarachnoid haelorrhage (SAH) is discussed. After diognostic procedures which included the cerebral digital substraction angiography (DSA) and myelography, it was seen that the cause of the SAN was a mass lesion at thoracal (Th) 12level. Histological examination revealed that the tumour was a neurilemmoma. İn the light of this the pertinent literature was reviewed.

KEY WORDS :

Subarachnoid haemorrhage, Neurofibroma, Spinal neurilemmoma, Cauda equina.

INTRODUCTİON

The incidence of schwannoma varies between 16-41% among spinal tumours (3,6,). Although, spinal tumours cause radicular pain and some somatic and sensorial neural deficits at the distal levels of the lesion, it is known that occosionally they can be cause of SAH.

On the otherhand, among the spinal lesions which cause SAH, there is a very low incidance of spinal tumours varying between 3-5% (3,5,13,16,22,24). Spinal arteriovenous malformations (AVMs) and glial tumours are more common cause.

CASE REPORT:

A 14 year old male patient complaining of headache, nause and vomiting for five days was admitted to the clinic. His pain had sadden onset and was localised to the neck. There was no unconscious period. He began to vomit with the onset of pain. From the medical history, it was learned that the patient had a similar attack a year ago and had been hospitalized. After examination he was discharged to perform a cerebral DSA. But during this period since the patient 's complaints regressed, he had not gone to the DSA.

On examination he was cooperative and oriented. Crenial nerve and senserimator finding were normal except for neck stiffness and Kernig's and Brudenzky's sings.

As CT scan was normal, a lumbar puncture (LP) was performed. The cerebrospinal fluid (ÇSP) was haemorrhagic, and protein content was 216 mg/100 cc. The patient was hospitalized with the diagnosis of SAH to investigate the aetiology.

Cerebral DSA planned and performed on the sixth day of the SAH and showed no pathology. Spinal myelography showed a regular contrast defect at the level of the Thoracal 12 vertebrae (Fig.1). İn the light of this finding, myeloCT scans of that level revealed a lasion at the region of the conus medullaris (Fig.2A–B).

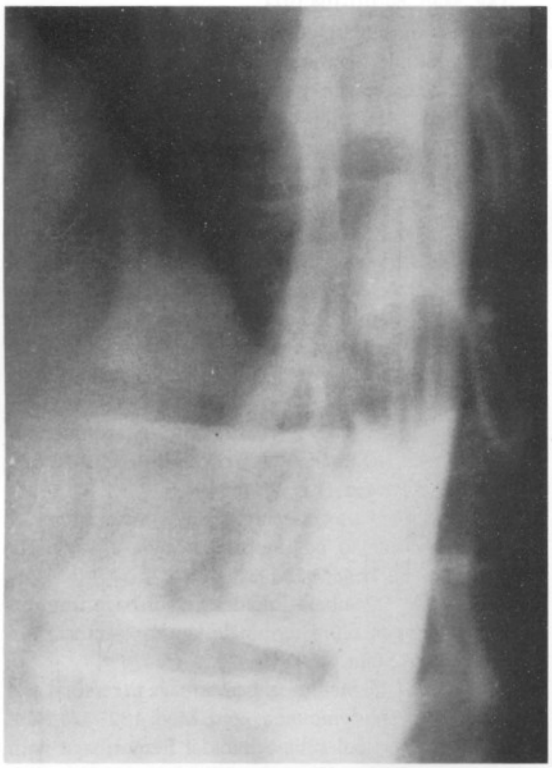

Fig. 1 : The regular contrast defect at the level of Th12 vertebrae on the myelogram.

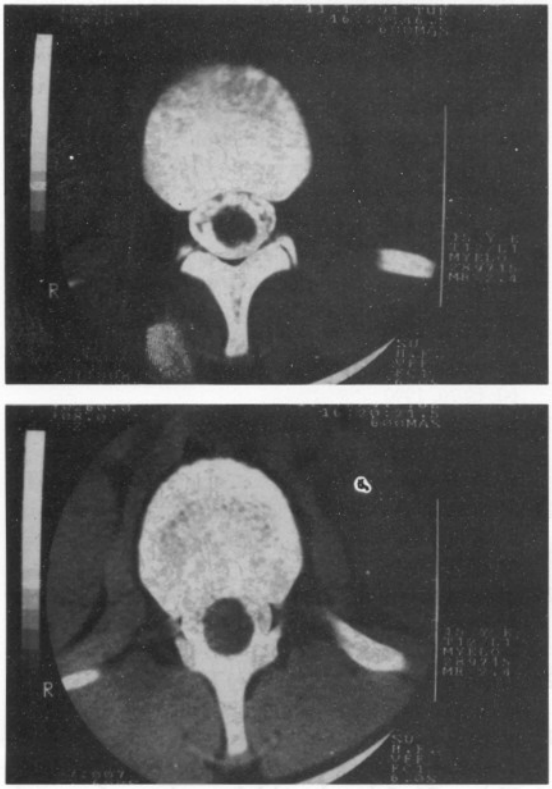

Fig. 2A-B : The myelo CT scans of the patient at the level of Th12 vertebrae

The patient underwent the surgery. At oparation, the intradural extramedullary tumour which was connected to the filum terminale, was removed totally, by laminectomy of Th12.

The postoparative period was uneventful and histological examination revealed **Neurilemmoma** (Fİg. 3A–B). The patient was discharced fully recovered and follow–up examination at the third month was normal.

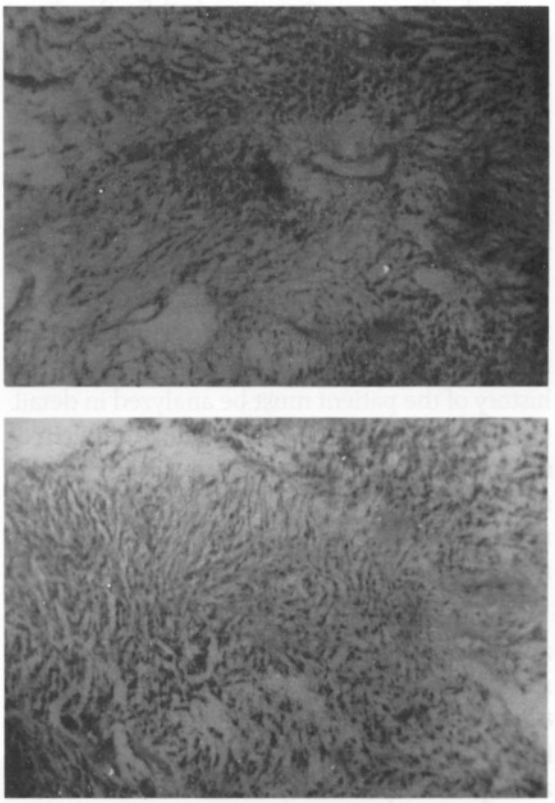

Fig. 3A-B : The histopathologic photograph of the tumour. The Antony A and Antony B patterns, characteristic for neurilemmoma, are seen (HE, x20).

DISCUSSİON

İn general, spinal tumours are recognized by neurological deficits below the level of the lesion (6). Andre–Thomas (1) first discovered that spinal tumours can sometimes cause SAH. Walton (24) reported an incidence of 1.5% for SAH of spinal origin. Sahs et al. (22) in their cooparative study of 6368 patients, gave an indidence of 0.05% and Halpern et al (13) found the incidence was 0.6%. Fearnside and co-

workers (6) found only 1 (1.4%) of their 70 patients with spinal tumour had SAH. We found only 1 patient (1.4%) with SAH among 68 spinal tumour patients at our neurosurgery clinic.

Ependymoma was found to be the cause of spinal SAH in 50% of patients (5,6,9,10,11,14,21) followed by neurofibroma and schwannoma (1,3,5,6,9,13,19). Other tumours such as astrocytoma and meningeal sarcomas were seen less frequently (5,6,17,23).

İn the literature, Bruni et al (3) fond only 14 SAH cases due to neurofibroma including their own cases. Among these 14 patients, four had neurofibroma (2,3,13,20), and the athers were schwannoma (1,3,4,5,7,8,12,15,18,19). When the findings of our patient compared with those 14 patients, we found a similarity except that a rebleeding history in our patient.

In general, when a SAH case is examined, attention must be given to the clinical presantation of the patiennt. Firs of all, the medical history of the patient must be analyzed in detail. Generally, as cerebral SAH patients complain of severe headache localized to the forehead, spinal SAH patients desoribe their pain in the neck or back region. Our patient was complaining of pain especially in the neck.

In addition; although, four vessel cerebral angiography is performed for SAH patients routinely, our opinion is that the spinal aetiology can not be investigated adequately. So, idiopathic group of SAH has become as great as 10 percent (3,9,16,21). But now, especially in spinal diognostic studies, since the devolopment of water soluble contrasts and magnetic resonance imaging, the incidance of idiopathic SAH will decrease.

For Correspondence: Ümit Acar M.D.,
Dokuz Eylül Üniversitesi
Tıp Fakültesi Hastanesi
Beyin Cerrehisi ABD.
İnciraltı - İzmir - TÜRKİYE

REFERANCES

1. Andre-Thomas F, Schaffer H, De Mertel T: Syndrome d'hemooragie meningee par une tumeur de la queue de cheval. Paris Med, 77:292-296, 1930
2. Bernell WR, kepes JJ, Clough CA: Subarachnoidal hemorrhage from malignant schwannoma of cauda equina. Tex. Med. 69:101-104,1973
3. Bruni P, Esposito S, Oddi G: Subarachnoidal hemorrhage from multiple neurofibromas of cauda equina: Case report. Neurosurgery 28:910-913,1991
4. De Divitiis E, Maiuri F, Corriero G, et al:Subarachnoidal hemorrhage due to a spinal neurinoma. Surg, Neurol, 7:187—190,1985
5. Dijindjian M, Dijindjian R, Houdart R, et al :Subarachnoidal hemorrhage due to a intraspinal tumours. Surg. Neurol. 9:223-229,1978
6. Fearnside MR, Adams CBT: Tumours of cauda equina . J. Neurol. Neurosurg. and Psychiatry 41:24-31, 1978
7. Fincher F: Spontaneus sıbarachnoidal hamorrhage in intradural tumours of lumbar sac. J. Neurosurg. 8:576-584,1951
8. Fortuna A, La Torre E: Neurinoma della caude con hemorragia subarachnoidea circosciritta. III Lavora Neuropsichiatreco 43:1157-1164,1968
9. Furuno M, Nishiura I, Koyama T: Spinal subarachnoidal hemorrage due to neurinoma of cauda equana. No Shinkei Geka 17:485-488,1989
10. Gambacorta D: Subarachnoidal hemorrhage from an epedymoma of filum terminale (author's transl.) Rıv Potal. Nerv. Ment. 97:92-961976
11. Gil R, Lefeure JP: Meningeal hemorrhage in cerebral and spinal cord ependymmoma. Bord. Med. 4:325-326,1975
12. Grollmus J: Spinal subarachnoidal hemorrhage with schwannoma. Acta Neurochir (Wien). 31: 253-256, 1975
13. halpern J, Feldman S, Peyser E: Subarachnoidal hemorrhage with papiledema due to spinal neurofibroma. Arch. Neurol. Psychiatry (Chicago) 79: 138-141,1958.
14. Herb E, Schwachenwald R, Nowak G: Acute bleeding into a filum terminale ependymoma. Neurosurg. Rev. 13:243-245, 1990
15. Krayenbuhl H: Spontane spinale subarachnoidal blutung und akude Ruchenmarks kompression bei intraduralem spinalem neurinom. Schweiz Med Wochenschr. 77: 692-694, 1947
16. Kulalı A, Von Wild K, Hobin HP: Subarachnoidal hemorrhage with acute cauda symptom due to a spinal tumour. Neurochirurgia (Stuttg) 32:87-90, 1989
17. Leber GL, Fabinyi GC: Subarachnoidal hemorrhage due to cauda equina haemangiopericytoma. Aust NZJ Surg. 60: 69-70, 1990
18. Motomochi M: Spinal subarachnoidal hemorrhage due to a thoracic neurinoma during anticoagulant therapy: A case report. Neurol Med. Chir. (Tokyo). 21: 781-784, 1981.
19. Muhtaroğlu U, Strenge M: Rezidivierende subarachnoidal blutung bei spinalem neurinom. Neurochirurgia (Stuttg) 23: 151-155, 1980
20. Prieto A, Cantu RC: Spinal subarachnoidal hemorrhage associated with neurofibroma of cauda equina. J. Neurosurg. 27: 63-69, 1967
21. Sahsh AL, Perret GE, Looksley HB, et al: Intracranial aneurysm and SAH. Philadelphia, JB Lippincot, 1969
23. Scotti G, Filizzolo F, Scialfa G, et al: Repeated SAH from a cervical meningioma. J. Neurosurg. 66: 779-781, 1987
24. Walton JN: Subarachnoidal hemorrhage of unusual aetiology. Neurology (minneap.) 3: 517-543, 1953