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Case Report

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Spontaneous epidural hematoma of the cervical spine in two patients with sarcoidosis

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ABSTRACT

Background: Sarcoidosis is correlated with hematological abnormalities that can result in spontaneous spinal epidural hematomas (EDH). As there is significant risk for permanent neurologic sequelae due to acute cord compression, these lesions often warrant emergent surgical intervention.

Case Description: Two females, 56 and 62 years of age, respectively, both with sarcoidosis on corticosteroids, presented with the spontaneous acute onset of cervical pain, and progressive myeloradiculopathy. Emergent MR scans revealed cervical EDHs with cord compression, respectively, from C5-T1, and C6-C7. Following emergent laminectomies in both cases, patients' neurological deficits resolved.

Conclusion: Two patients with sarcoidosis at increased risk for spontaneous hemorrhages, presented with cervical EDHs warranting emergent decompressive laminectomies.

Keywords: Cervical spine, Epidural hematoma, Sarcoidosis

INTRODUCTION

Sarcoidosis may lead to coagulation disorders that rarely result in spontaneous spinal epidural hematomas (EDH). Surgical management typically warrants decompressive laminectomies, that often result in favorable outcomes. Here, we present two patients with sarcoidosis who developed spontaneous acute cervical EDHs requiring, emergent laminectomies, resulting in resolution of their neurological deficits.

CASE DESCRIPTIONS

Case 1

A 56-year-old female with sarcoidosis and deep venous thrombosis acutely presented with progressive left hemiparesis (2-3/5 motor deficit, hyperreflexia, bilateral Babinski signs, and left-sided sensory loss of C6, C7 distributions). The cervical MRI showed an acute epidural hematoma from C5-T1 requiring an emergent C6-C7 laminectomy [Figure 1]. Postoperatively, her neurological deficits fully resolved.

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Figure 1: This figure shows a T2W MRI midsagittal section of the c-spine in which a posteriorly originating hypointense epidural collection is seen suggesting a hyperacute epidural hematoma.

Case 2

A 62-year-old female with sarcoidosis suddenly developed left upper extremity weakness (motor grade 4/5), with a left-sided C6 sensory deficit. When the MRI showed an acute C5-C6 EDH, she underwent an emergent C5-C6 laminectomy [Figure 2] that also resulted in a full recovery.

DISCUSSION

Spontaneous spinal epidural hematoma

Spontaneous spinal EDH are rare, representing less than 1% of all spinal space-occupying lesions. They occur with an incidence of 0.1 in 100,000 per year,^[1] and are usually found in the cervicothoracic region. Symptoms typically include acute neurologic deterioration reflecting the level of the epidural bleed and resultant spinal cord compression.^[2,3]

Bleeding disorders with sarcoidosis leading to EDH

Sarcoidosis occurs in approximately 11 cases per 100,000 per year. Patients with sarcoidosis are prone to developing bleeding disorders that predispose them to spontaneous spinal EDH. Emergent spinal MR examinations typically lead to the correct diagnosis and need for surgery depending upon the location, extent, and severity of the EDH and spinal cord compression.^[4] Emergent surgery (e.g. laminectomy) performed in a timely fashion (i.e. optimal within 6–12 h, and less than 24h) often leads to adequate restoration of neurologic function.^[5]

CONCLUSION

Patients with sarcoidosis are at greater risk for bleeding disorders that may result in spontaneous spinal EDH. In the



Figure 2: This figure shows a T2W MRI sagittal section of the c-spine in which an epidural collection mainly located at the level of C5-C6 is present with signs of incipient cord compression.

presence of a significant neurologic deficit, patients should undergo emergent MR scans, and surgical evacuation.

Declaration of patient consent

Patient's consent not required as patients identity is not disclosed or compromised.

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Conflicts of interest

There are no conflicts of interest.

REFERENCES

- 1. Li C, He R, Li X, Zhong Y, Ling L, Li F. Spontaneous spinal epidural hematoma mimicking transient ischemic attack: A case report. Medicine (Baltimore) 2017;96:e9007.
- Martinez-Perez R, Rayo N. Spontaneous acute epidural haematoma of the cervical spine with an atypical onset resembling ictal symptom. Neurologia 2020;35:507-8.
- Patel R, Kumar A, Nishizawa K, Kumar N. Hemiparesis in spontaneous spinal epidural haematoma: A potential stroke imitator. BMJ Case Rep 2018;2018:bcr2017222686.
- 4. Salehpour F, Mirzaei F, Kazemzadeh M, Alavi SA. Spontaneous epidural hematoma of cervical spine. Int J Spine Surg 2018;12:26-9.
- Yao YX, Li MX, Sun LJ. Good outcomes after the delayed removal of an epidural hematoma: A case report. Medicine (Baltimore) 2018;97:e0341.

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