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Abstract

BACKGROUND: There is no gold standard surgical treatment for cervical hyperextension deformity, especially in case of muscular dystrophy. Special considerations and caution should be taken as they carry a high risk of early mortality and spinal cord injury. Only a few case reports are available in the literature.

CASE DESCRIPTION: We report a case of surgical correction of an iatrogenic cervical hyperextension deformity following sagittal balance correction in a patient with congenital limb-girdle myopathy. The patient was successfully treated by posterior cervical release and fusion after verification of the range of motion, reducibility of the deformity, and absence of any positional spinal cord compression with dynamic radiographic examination and preoperative magnetic resonance imaging in the desired postoperative position.

CONCLUSIONS: We suggest posterior cervical release and fusion in case of a radiologically and clinically reducible cervical hyperextension deformity under both motor and sensory spinal evoked potential monitoring. In cases of longstanding, rigid, nonreducible cervical hyperextension, laminectomy and concomitant duroplasty could be considered.

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KEYWORDS: Limb-girdle muscular dystrophy; Neuromonitoring; Posterior cervical release and fusion; Rigid neck hyperextension deformity

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