E-Poster

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When Tendons Slip: Extensor Digitorum Communis (EDC) Subluxation in a Hemiplegic Patient With Mixed Tone

Topic: Complications/Sequelae (ie Spasticity, Immobilization and Frailty)

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BACKGROUND

This is a case of a patient with left hemiplegic cerebral palsy (CP), followed by pediatric rehabilitation for left upper extremity spasticity and dystonia, presenting with extensor digitorum communis (EDC) tendon subluxation.

CASE DESCRIPTION

A 32-year-old woman with history of left hemiplegic CP, Gross Motor Function Classification System ll (GMFCS II), had spasticity and dystonia mostly in her left upper extremity resulting in shoulder heaviness and a locking sensation in her hand. For this, she had been receiving botulinum toxin injections to the left upper extremity for several years. She had also undergone multiple surgeries, including tendon release of the finger flexors and most recently wrist arthrodesis at age 25. Recent x-rays of the hand demonstrated advanced OA of the carpometacarpal and intercarpal joints, as well as mild narrowing of the interphalangeal and metacarpophalangeal (MCP) joint spaces.

She presented with a new complaint of a sensation that the left third and fourth MCP joints were popping and clicking on the dorsal aspect with associated tenderness, ecchymosis, and swelling. On exam, the proximal and distal interphalangeal joints of the third and fourth digits were hyperextended with hyperlaxity of the EDC tendons overlying the MCP joints consistent with EDC tendon subluxation. She was referred to orthopedic hand surgery.

Six months later, she underwent surgical centralization of the EDC tendons in the ring and long fingers. She received a custom ulnar gutter splint postoperatively, then began three months of occupational therapy with resolution of the popping sensation.

DISCUSSION

Extensor digitorum communis subluxation most commonly presents with a popping or locking sensation with associated MCP joint pain and swelling. Etiologies described in the literature include trauma, degeneration, and congenital subluxation. Degeneration, as was present in this case, may lead to increased joint capsule laxity or atrophy in the sagittal fibers of the extensor hood. There is no report in the literature of extensor tendon subluxation manifesting as the result of chronic botulinum toxin injections, though this phenomenon has been reported with the temporomandibular joint.

Conservative management includes finger splinting and occupational therapy (OT) hand therapy. Surgical interventions aim to realign the tendon or reconstruct the sagittal band in the extensor mechanism.

CONCLUSION

Extensor digitorum communis subluxation at the MCP joint is a rare manifestation associated with joint degeneration and increased laxity. The potential role of long-term botulinum toxin injections in contributing to this condition remains unclear and warrants further investigation.

Statement of Disclosures

None

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