HETEROTOPIC OSSIFICATION AFTER CRYPTOCOCCAL MENINGITIS IN A DIALYSIS-DEPENDENT PATIENT: A CASE OF ELBOW CONTRACTURE

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Background

Heterotopic ossification (HO) is bone formation in soft tissues where it does not normally occur, such as subcutaneous fat, tendons, or around nerves. The most common form is myositis ossificans (MO), involving calcification in muscle. HO typically follows trauma or orthopedic surgery, while neurological and genetic causes are rarer but often more severe. Symptoms include pain, swelling, and reduced range of motion. Treatment includes medication, physical therapy, surgery, or radiation.

Case report

A 39-year-old male with a history of mesangioproliferative glomerulonephritis underwent a cadaveric kidney transplant in 2021. In August 2024, he developed cryptococcal meningitis with impaired consciousness and hypertensive hydrocephalus, requiring placement of a ventriculoperitoneal shunt. During treatment, graft function deteriorated, requiring resumption of hemodialysis. Given CNS cryptococcosis and the risk associated with continued immunosuppression, graft nephrectomy was performed in December 2024. The patient was immobile, without motor lateralization, with generalized edema, bilateral foot drop, flexion contractures of the feet, and a contracture of the left elbow. An A-V fistula was created in his right elbow During rehabilitation, he regained the ability to sit with assistance and stand with a walker and therapist support but remained non-ambulatory. Despite early elbow mobilization, range of motion remained limited: there was a 40° extension deficit, and flexion was possible up to 90°. Due to persistent contracture, heterotopic ossification was suspected and radiological evaluation was performed. X-ray revealed joint space narrowing and irregular ossifications in periarticular soft tissues. CT confirmed massive heterotopic ossification near the medial epicondyle, olecranon, and radial head. Differential diagnosis included myositis ossificans versus dialysis-related calcifications.

Conclusion

This case highlights the importance of considering heterotopic ossification as a potential cause of elbow contracture in non-traumatic contexts. Timely recognition and interdisciplinary rehabilitation are crucial to preserving function and quality of life.

Keywords: heterotopic, ossification, elbow, contracture, cryptococcal