E-Poster

EP-532

Lost Bone, Found Challenges: The Rehabilitation Challenge of the Rare Gorham-Stout Disease

Topic: Miscellaneous

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BACKGROUND

Gorham-Stout disease (GSD) is a rare, idiopathic disorder characterized by progressive osteolysis due to aberrant lymphangiogenesis, leading to severe skeletal destruction and functional impairment. The exact pathophysiology remains elusive, and treatment guidelines are not well established. The unpredictable course of the disease makes early recognition critical, particularly for rehabilitation specialists, who play a key role in mitigating disability. This case highlights a rare presentation of scapular osteolysis following minor trauma, illustrating the complex interplay between bone resorption, pain, and functional adaptation in a rehabilitation context.

METHODS

A retrospective case study was conducted through a comprehensive review of medical records, radiological findings, histopathological reports, and laboratory data. A longitudinal functional assessment was performed to evaluate disease progression and the impact of different rehabilitation strategies. The rehabilitation program was designed to address pain management, mobility preservation, compensatory strategies, and musculoskeletal conditioning.

CASE DESCRIPTION

A 45-year-old woman presented in 2015 with progressive right shoulder pain and functional limitation following a low-impact trauma. Initial radiographs were unremarkable; however, subsequent imaging demonstrated progressive, idiopathic osteolysis of the scapula. Histopathology confirmed GSD, revealing extensive osteoclastic activity and lymphatic vessel proliferation. Laboratory tests excluded infectious, metabolic, and neoplastic causes. Despite pharmacological treatment with bisphosphonates and interferon alpha-2b, the patient exhibited worsening bone resorption, leading to severe shoulder instability and compromised upper limb function. Rehabilitation was initiated early, incorporating targeted physiotherapy, neuromuscular re-education, pain control strategies, and assistive adaptations. Longitudinal follow-up revealed progressive loss of scapular support, requiring continuous functional reassessment and task-specific motor training.

DISCUSSION

This case underscores the challenges of managing rare osteolytic disorders, emphasizing the dynamic role of rehabilitation in addressing functional deterioration. The association between minor trauma and osteolysis onset raises important questions about the pathomechanics of GSD. Rehabilitation strategies must be highly individualized, balancing joint protection, compensatory movement patterns, and long-term musculoskeletal adaptation.

CONCLUSION

Gorham-Stout disease requires a multidisciplinary, rehabilitation-centered approach, given its progressive and functionally devastating nature. Early physiatric intervention is crucial to delaying disability and optimizing quality of life. This case highlights the urgent need for standardized rehabilitation protocols for rare osteolytic diseases and prompts further research into the mechanisms driving disease progression.

Statement of Disclosures

None

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Doi: 10.5606/archisprm.2026.EP-532