E-Poster

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Charcot Foot in Diabetic Neuropathie: Role of Physical Medicine and Functional Rehabilitation Management (A Case Report)

Topic: Health Conditions (Nervous System, Musculoskeletal System, Cardiopulmonary System)

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BACKGROUND

Charcot foot is a rare and severe complication of diabetic neuropathy. It is characterized by progressive osteolysis, fractures, and joint disorganization due to impaired proprioception and chronic inflammation. The risk of ulcers, infections, and amputation is greatly increased by these bone changes. Early management in physical medicine plays a crucial role in the limitation of this joint deformation.

CASE DESCRIPTION

This is a 59 year old patient who has been followed for type II diabetes for 10 years, with suboptimal glycemic control (HbA1c ranging between 9 and 10%), and on insulin therapy for five years. Her diabetes had progressed to degenerative complications, such as diabetic foot, with amputation of the left first toe.

On clinical examination, her left foot was deformed, painless, and diffusely swollen with a significant increase in volume, without any clinical signs of inflammation. In addition, lymphedema was noted in the left leg. Standard radiography revealed alterations in the bony landmarks of the left foot.

Management in physical medicine and rehabilitation (PMR) consisted of orthotic support using orthopedic shoes combined with motor rehabilitation. This approach resulted in a notable improvement in the patient's clinical condition.

DISCUSSION

Charcot foot is a rare complication of diabetic neuropathy, is characterized by progressive osteolysis leading to joint instability and deformity. Diabetic neuropathy, marked by impaired proprioception and diminished pain perception, predisposes patients to repetitive microtraumas and an uncontrolled inflammatory response. This cascade results in bone fractures and joint disorganization that are often difficult to diagnose during the acute phase due to its insidious clinical presentation.

Physical medicine and rehabilitation plays an essential role in managing this condition. Early intervention through targeted motor rehabilitation, specialized orthotic devices (such as cruro-pedious splints and appropriate offloading measures), and comprehensive patient education has been shown to improve limb function and reduce the risks of ulceration and infection. Moreover, a multidisciplinary approach involving diabetologists, orthopedic surgeons, and rehabilitation specialists is essential to optimize functional outcomes and long-term prognosis.

CONCLUSION

Charcot foot is a rare but severe complication of diabetic neuropathy that can lead to significant joint deformities. Early diagnosis and a multidisciplinary approach, including physical medicine and rehabilitation, are essential for effective management and improved outcomes.

Statement of Disclosures

None

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