The Impact of Physical Therapy Intervention on Necrotizing Fasciitis: A Case Report

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Background

Necrotizing Fasciitis: a rare but potentially fatal condition in which infection infiltrates the body and rapidly progresses resulting in skin, muscle, and other tissue death
• Sepsis can result within 24-96 hours1 and mortality rates have been reported as high as 74%2
• Surgical removal of skin and muscle tissue is often necessary which may lead to amputation

Purpose

To examine the role of the Physical Therapist as part of an interdisciplinary team in the treatment of a patient with Necrotizing Fasciitis

Case Description

Subject: 60 year old Caucasian male
Past Medical History:
• Hypertension
• Ulcerative colitis
• Vocal cord polypectomy
• Shingles
• Varicella zoster
• Vasculitis and associated encephalopathy with ataxia
• Neurogenic bladder
• Left optic neuritis

Prior Level Of Function: Business owner completely independent with all activities of daily living and instrumental activities of daily living

Medical Conditions Upon Hospital Admission:
• Sepsis/septic shock
• Acute respiratory failure
• Pressure ulcer (stage III low back)
• Anal/rectal abscess

Interventions

• Wound Care: Pulsed lavage, selective debridement, hyperbaric oxygen, wound V.A.C. and appropriate dressing changes
• Gait Training: Once to twice daily with rolling walker
• Transfer Training
• Strengthening: Bridges, hip adduction/abduction, resisted heel slides, straight leg raises, modified leg press, long arc quads, hamstring curls, mini squats, quad sets, Nustep™, lower extremity range of motion

Results

At The Time Of The Discontinuation Of This Episode Of Care, The Following Patient Outcomes Were Noted:
• Wound Care:
  • Thigh Wound: complete closure
  • Buttock Wound: 74.6% reduction in size
• Gait Training: The patient was independent in ambulating with a rolling walker on smooth, level surfaces and his distance increased from 25 feet to 230 feet
• Transfer Training: The patient performed sit to stand transfers with stand-by assistance of one

Clinical Relevance & Conclusion

• Patients with Necrotizing Fasciitis are at an increased risk for loss of strength and endurance
• The findings of this case report suggest that physical therapy intervention can improve mobility and independence in patients with severe physical and functional limitations resulting from Necrotizing Fasciitis
• Further research is needed to provide Physical Therapists with best practice guidelines for the treatment of patients with Necrotizing Fasciitis

Works Cited: