

Catatonia and Multiple Pressure Ulcers: A Rare Complication in Rehabilitation Setting

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Abstract

An eighteen years old boy reported with a continuous course illness characterized by features of catatonia secondary to severe depression with multiple pressure ulcers over sacrum and heels. Ulcers were effectively managed by a team of physiatrist, psychiatrist and rehabilitation nurses. Immobility, reduced nocturnal movements, increased skin fragility and poor nutrition contributed to the development of the pressure ulcer in bed bound patients. Efforts should be directed towards prevention of pressure ulcers to reduce additional morbidity. Key Message: First case to be reported of a patient with catatonia secondary to depression having multiple pressure ulcers.

Key words: catatonia, depression, pressure ulcer, rehabilitation

Introduction

Pressure ulcer is best described as “an area of unrelieved pressure over a defined area, usually over a bony prominence, resulting in ischemia, cell death, and tissue necrosis¹. Pressure due to immobility is the most important risk factor in the development of pressure ulcer. However, no case is reported till date in literature of pressure ulcer in a patient with catatonia. We report a case with multiple pressure ulcers secondary to immobility due to catatonia in a patient with severe depression and how he was managed by combined efforts of a multidisciplinary team.

Case Report

An 18 years old man with no significant past, personal or family history with well adjusted pre-morbid personality presented with an acute onset continuous illness characterized by low mood and withdrawn behavior for

last nine months, mutism, staring and stereotypic behavior with posturing, reduced oral intake, and negativism for three months and multiple ulcers over back and heels for last one month. The symptoms started while he was preparing for his board exams and worsened when he was unable to perform well in the examinations. At evaluation he was apathetic and had open eyes with fixed gaze but no emotional responsiveness and reaction to stimuli. He was mute with no spontaneous acts and no rigidity. He was poorly kempt and had asthenic built. Systemic examination was normal. He had three pressure ulcers (details follow). He was diagnosed as a case of catatonia with severe depression and multiple pressure ulcers. Routine haemogram and biochemistry were within normal limits. He received oral benzodiazepines (Tab. Lorazepam 2mg three times a day), antibiotics (Cap. Amoxicillin 500mg three times a day) and vitamin supplements. He was referred to rehabilitation department for the management of pressure ulcers. He had three pressure ulcers - one rectangular shaped, grade III ulcer over sacral region 5.0 X 2.5cms in size, clean and granulating (Figure 1), and two circular ulcers over bilateral heel grade II 1cm in diameter with necrotic slough

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Fig. 1. Sacral ulcer



Fig. 2. Bilateral Heel Ulcers

(Fig. 2). Wound swab cultures showed growth of *Enterobacter* species sensitive to amoxicillin. There was no evidence of osteomyelitis on X-rays of pelvis and ankle and foot. He was put on conservative regimen of management consisting of nursing on water mattress, proper bed positioning, regular pressure relief, daily debridement and dressing of pressure ulcers, and appropriate antibiotic as per the culture along with continuation of the supportive medications. Catatonic features responded initially to benzodiazepines but later electroconvulsive therapy was initiated and seven sessions were conducted. Patient responded well to the combined approach and was shifted to oral anti-depressant (Cap. Fluoxetine 20 mg once a day) and was discharged after an inpatient stay of over eight weeks. At the time of discharge, he was euthymic with adequate oral intake, taking medications regularly and all pressure ulcers were completely healed.

Discussion

The incidence of pressure ulcer in hospitalized patients ranges from 2.7% - 29%, and prevalence from 3.5% -

69%². Prevalence of pressure ulcers in psychiatric hospitals ranges from 1.4 – 3.8% in older people above 65 years and 0.0 - 0.8% in younger patients³. The common causes for development of pressure ulcer in patients with psychiatric diagnosis are: impaired consciousness, dementia, Parkinson's disease⁴, depression⁵, altered psychological behavior or splint usage in psychotic patients⁶. A common factor in all these conditions is immobility, leading to prolonged unrelieved pressure, tissue ischemia and cell death.

Pressure ulcers are caused by the interaction of multiple, diverse, etio-pathological factors that can be classified as patho-mechanical or patho-physiological⁷. Common patho-mechanical (extrinsic or primary) factors are prolonged pressure and immobility along with shear and friction, where as fever, anemia, malnutrition, decreased lean body mass and neurological disease are common patho-physiological (intrinsic or secondary) factors.

Immobility in bed tends to cause pressure ulcers on occiput, sacrum, heels, malleoli, and trochantric regions⁸. Our patient had ulcers over sacrum and heel. Nocturnal movements associated with sleep tends to decrease as hospital stay increases⁹ and analysis of periodic body movements in persons at risk for pressure ulcers suggest a relationship between spontaneous body movement and the development of pressure ulcer¹⁰. Our patient developed ulcers before admission to the hospital but must have had reduced body movement at night. There is increased association of skin fragility and poor healing with an altered psychological behavior. This combination of vulnerability to recurrent pressure sores in association with the pathological intellectual debility is described as 'ectodermic syndrome'⁶ that might have also contributed to ulcer generation in our patient. Our patient had lean body mass (BMI-19, low normal) but haemoglobin (12.6gm/dl), serum albumin (3.9gm/dl), and absolute lymphocyte count (2240/cumm) were within normal range suggesting minimal contribution from patho-physiological factors in ulcer development in spite of reduced oral intake for last few weeks.

It is imperative to treat the patient's medical condition that predisposes to pressure ulcers. If possible, the patho-physiological factors should be controlled in conjunction with the elimination of the patho-mechanical factors. In our case, medications and electroconvulsive therapy was started to eliminate the primary pathology by the psychiatrist and the rehabilitation team provided proper care of the ulcers by conservative regimen consisting of appropriate medications, dressing and advice for proper nursing care for controlling the physiological factors and early healing of the ulcers.

The incidence of pressure ulcers in patients with psychiatric illness, especially with catatonia might be more

than what is reported in the literature. Pressure ulcers significantly increase length of stay, morbidity and the cost of management. All efforts should be directed towards prevention of pressure ulcers in bed bound patients to reduce additional morbidity.

Acknowledgement

We sincerely acknowledge Dr AB Taly for critical appraisal of the manuscript.

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