



H109 Pressure Ulcer-Related Osteomyelitis in a Fatally Neglected Adult

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After attending this presentation, attendees will become more familiar with the assessment and documentation of instances involving malnutrition and negligence, along with methods of assessment and histological sampling of bedsores and osteomyelitis.

This presentation will impact the forensic science community by increasing awareness of neglected adults, and by demonstrating the methods used to document their injuries.

Forensic pathologists have long played a central role in the investigation of child abuse and elder abuse. For most people, dependence on others for care peaks at the extremes of age. The third category of vulnerable individual is not an extreme of age, but rather an extreme of health. These individuals are made medically vulnerable by physical and/or cognitive illness, resulting in partial or total dependency on caregivers to provide the necessities of life (food, water, medication, prevention of harm). In some cases, limited financial resources, decreased access to health-care, or lack of insight into the underlying disease (i.e., the social determinants of health) can further compound this vulnerability.

This report describes the death of a young adult man related to neglect by a caregiver. A traumatic brain injury in early life caused quadriplegia, making him vulnerable to developing infected pressure ulcers (with osteomyelitis) and pneumonia that ultimately caused death in a malnourished state.

A 41-year-old man had suffered a head injury with bilateral subdural hemorrhage at approximately three months of age, which was thought to be related to child abuse. The injury was treated surgically and he was made a ward of the state. The boy was subsequently diagnosed with cognitive impairment, cerebral palsy, and spastic quadriplegia and developed flexion contractures of the extremities. At the time of his death, care had been provided by a relative for several years. The man was discovered unresponsive at home, his sibling notified emergency services, and he was transported to the hospital, where he was found to have agonal respiration and died shortly thereafter.

Postmortem examination revealed a 4'9" (145cm) male, weighing 57 pounds (25.8kg, a Body Mass Index (BMI) of 12.3kg/m²), with a cachectic appearance, subtotal absence of body fat stores, and flexion contractures. Thirty-three pressure ulcers were identified over bony prominences and in areas of contracture; 18 were stage II, extending into the dermis, while 15 extended into subcutaneous fat, muscle, or bone.

Internal examination revealed acute hypostatic pneumonia, remote subdural hemorrhage, and other evidence of old brain injury. Histological examination of the pressure ulcers revealed necrosis, cellulitis, and granulation tissue formation. Examination of the bone revealed evidence of acute on chronic osteomyelitis.

The cause of death was given as pneumonia, starvation, and infected bedsores in a man incapacitated by an old head injury. The caregiver was charged with murder, found guilty of manslaughter, and sentenced to 20 years in prison.

Elder Abuse, Pressure Ulcer, Neglect