

# Atypical Pressure Sores Developing In A Patient With Alcohol Intoxication

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## Citation

H Canter, A Aksu, A Abusafa, E Latipov, T Safak, A Kecik. *Atypical Pressure Sores Developing In A Patient With Alcohol Intoxication*. The Internet Journal of Internal Medicine. 2003 Volume 5 Number 1.

## Abstract

We present a case of atypical pressure sores in a 42 year-old male alcoholic patient found to be lying in the right decubitus position. He was living alone and was unconsciously lying in that position for more than 48 hours. The atypical sites for pressure sores and possible pathophysiological mechanism of development of these ulcers in an unconscious patient due to alcoholism are discussed.

## INTRODUCTION

Pressure sore is a tissue ulceration commonly seen in debilitated patients due to unrelieved pressure, altered sensory perception, incontinence, exposure to moisture, altered activity and mobility, friction and shear forces. Geriatric patients with organic problems and patients with spinal cord injuries are the high-risk groups [7]. Psychosocial problems such as unemployment, low level of education, independent self-care and alcohol or drug abuse increase the risk of development of pressure sore [7,9]. Soft tissues over bony prominences are the common sites for ulcer development. As is typical for bed ridden patients, sacral ulcers are most common, but with a change from bed to wheelchair the incidence of sacral ulcers decreases and ischial ulcers increases [4, 6, 8]. Only 1.6 % of the patients present with sores in areas outside the pelvis and lower extremity [7]. In our case, however, there were multiple pressure sores on the body, which were the typical contact points of the body with the ground when lying right side on a straight surface, including the right zygomatic arch, the right side of the thoracic cage, the right anterior superior iliac spine, the lateral aspect of the right knee, the medial side of the left knee, the scrotum and the dorsal sides of the foot (figure 1 a-c). These atypical features and the possible development mechanism of our patient's ulcers are presented.

## Figure 1

Figure 1: Atypical pressure sores located on a) face, b) thorax, iliac spine and great trochanter, and c) medial/lateral aspects of the knees, malleoles and dorsal sides of the feet.



## Figure 2



**Figure 3**



### CASE REPORT

A 42 year-old male alcoholic patient was admitted to emergency department due to unconsciousness and the presence of necrotic tissue on his right zygomatic arch of the face. The medical history revealed that he was a chronic alcoholic and living alone. He did not have any known medical problems or sensorial deficits. He had been lying on the right decubitus position on the floor of his house for more than 48 hours until he was found and taken to our emergency department.

On the physical examination, he was unconscious and only localised painful stimuli. He had fever of 38.4°C, tachypnea, and blood pressure of 90/40 mmHg. Peripheral pulses were present but filiform. Beside the stage III pressure sore on his right zygomatic arch of the face there were several atypical pressure sores on the right side of the thoracic cage, the right anterior superior iliac spine, the lateral aspect of the right knee, the medial side of the left knee, the scrotum and the dorsal sides of the feet (figure 1 a-c). In routine blood analysis, he had elevated liver enzymes (GGT, ALT, AST, LDH). He was in deep metabolic acidosis with blood pH of 7.68. Nothing other than chronic atrophic changes in the gray mater of the brain (cerebral and cerebellar atrophy which were probably due to chronic alcoholism) was observed in the cranial CT obtained to exclude a possible head trauma, which may be the reason of unconsciousness. Multiple microorganisms (*E. coli*, *K. pneumonia*, *Staph. heamaliticus*) were cultured from the wound over zygomatic arch of the face. The medical status of the patient deteriorated before any surgical intervention, and he died due to cardiopulmonary arrest.

### DISCUSSION

Pressure sore is tissue ulceration commonly seen in debilitated patients. Although altered sensory perception,

incontinence, exposure to moisture, altered activity and mobility, friction and shear forces have a role in development of pressure sores, unrelieved pressure over soft tissues is the single most important etiologic factor in pressure ulcer development [3]. If the external compressive force exceeds capillary bed pressure capillary perfusion is impaired and ischemia will ensue. Areas of body parts over bony prominences like ischial tuberosity (43%), trochanteric area (16%), sacrum (19.4%) and lower extremity (20%) are the most commonly affected areas [7]. In addition to these, pressure sores at unusual body parts were also described in particular cases. Pressure sore on nasal dorsum develops in intensive care patients who need ventilatory support in CPAP mode with a mask on their face [1].

An inverse relationship exists between the amount of pressure and the length of time required to cause ulceration [2]. Additionally, susceptibility of different tissues to ischemia will determine the final outcome. Time for development of necrosis in neuronal tissue is much shorter than that of necrosis in skin. Therefore, after an overnight compression between bench and the body weight, peripheral axonal neuropraxia develops on the arm while the skin on the axilla is still intact in a “Saturday night palsy” patient [5].

In this particular case, we present a chronic alcoholic patient living alone with pressure sores located on the typical contact points of the body with the ground while lying on his right side on the floor due to the overdose alcohol intake. By considering the development of necrosis on the skin it could be speculated that either the time period spend on the floor is longer than an overnight period or the pressure over these soft tissues is much heavier than the one in case of a “Saturday night palsy”. Both mechanisms may be true for this particular case.

Geriatric patients with organic problems and patients with spinal cord injuries are the high-risk groups [7]. Psychosocial problems such as unemployment, low level of education, independent self-care and alcohol-drug abuse increase the risk of development of pressure sore [7, 9]. This is the first case in the literature of an alcoholic patient who spend several days lying unconsciously on his one side and who developed multiple atypical pressure sores on his body.

### CORRESPONDENCE TO

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