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Letter to Editor



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Recognizing and managing geriatric frailty: Lessons from two cases

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Dear editor,

Geriatric frailty is a multidimensional concept associated with the weakening of health status and decreased resilience in elderly individuals. It emerges as a natural consequence of the aging process and is influenced by a range of physiological, psychosocial, and environmental factors. Geriatric frailty is linked with increased morbidity and mortality risk when elderly individuals are exposed to sudden stressors or stress[1].

In academic literature, geriatric frailty is characterized by measurable signs such as weakness, fatigue, low physical activity levels, low body mass, slow walking speed, low grip strength, and reduced energy levels in elderly individuals. This condition can elevate the risk of disease and disability and adversely affect quality of life[2,3].

Although the exact mechanism of geriatric frailty is not fully understood, age-related physiological changes, chronic diseases, nutritional disorders, social isolation, and psychological factors are believed to play significant roles. Therefore, addressing geriatric frailty requires a multidisciplinary approach and necessitates the provision of individualized treatment and support services tailored to specific needs[4,5]. Recently we have managed two cases illustrating the clinical manifestation of geriatric frailty in elderly patients. These cases underscore the importance of recognizing and addressing frailty, particularly in individuals with multiple comorbidities, to mitigate risks and optimize outcomes. Patients agreed to the publication of the case report. Patient data were anonymized in this report.

First case was a 75-year-old male patient presented with chest pain following a fall. His medical history included a previous cerebrovascular accident, hypertension, atrial fibrillation, and peripheral artery disease. On admission, his blood pressure was 138/79 mmHg, and oxygen saturation was 96%. Physical examination revealed tenderness in the right hemithorax. A chest CT

scan showed fractures in the 6-9 ribs with hemothorax measuring 1.5 cm at its thickest point (Figure 1). The patient was hospitalized for pain control. On the second day of admission, he developed fever and cough. His temperature was 38.9 °C, oxygen saturation was 92%, and blood pressure was 125/68 mmHg. A chest X-ray revealed consolidation. Ceftriaxone was added to the treatment regimen. After 5 days of treatment, his symptoms improved, and he was discharged.

In this case, the 75-year-old male patient experienced multiple rib fractures following a minor trauma, reflecting his heightened fragility. Complications, such as pneumonia, ensued due to his susceptibility to adverse outcomes. The presence of underlying medical conditions, including a history of cerebrovascular accident, hypertension, atrial fibrillation, and peripheral artery disease, likely contributed to his increased vulnerability. The development of pneumonia prolonged his hospital stay, highlighting the significance of recognizing and addressing fragility in elderly patients. Such individuals are at greater risk of experiencing complications from seemingly minor injuries, necessitating comprehensive medical

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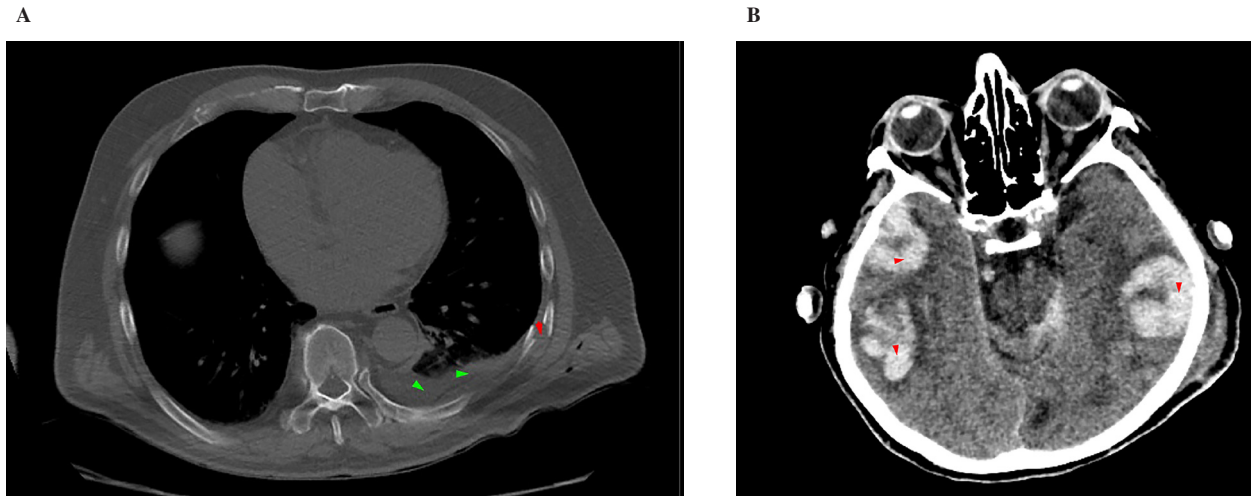


Figure 1. Computed tomography (CT) scan of the thorax in a 75-year-old man who experienced chest pain following a fall (red arrow shows rib fracture, and green arrows show hemothorax (A). Cranial CT scan of the patient (red arrows show intracranial hematoma) (B).

management and prolonged hospitalization to ensure optimal recovery and prevent further adverse events. This case underscores the importance of tailored care strategies and vigilant monitoring to mitigate risks and improve outcomes in elderly patients with multiple comorbidities and heightened fragility.

The second case involved a 67-year-old female patient who presented with a mechanical fall onto her left side while sitting in a chair, complaining of discomfort. Her medical history revealed a cerebrovascular accident with left-sided sequelae 5 months prior, requiring assistance from relatives and walking with a cane. She also had a history of hypertension and diabetes mellitus. On physical examination, she exhibited disorientation, partial spontaneous eye opening, and incoherent speech, with intermittent yelling and agitation. Brain imaging revealed significant hemorrhagic density increases consistent with subarachnoid hemorrhage bilaterally, with the largest hematoma measuring approximately 55 mm in the right frontotemporal regions and left occipitotemporal region, accompanied by edema and mass effect. Other systemic examinations were unremarkable. Due to the presence of intracranial hemorrhage, the patient was admitted to the intensive care unit for monitoring. After 13 days of follow-up in the intensive care unit, the patient died.

Patients with pre-existing neurological conditions often exhibit increased frailty, rendering them more susceptible to adverse outcomes following minor trauma. In the case described, the patient's history of cerebrovascular accident contributed to her heightened vulnerability. Despite the seemingly minor nature of the fall, it precipitated intracranial hemorrhage, ultimately leading to fatal consequences. This underscores the critical importance of recognizing and addressing the heightened fragility of such

individuals, as even minor trauma can have catastrophic outcomes. Healthcare professionals should exercise caution and implement preventive measures to mitigate the risk of adverse events in neurologically compromised patients, emphasizing the need for comprehensive care and vigilant monitoring to ensure optimal outcomes.

In conclusion, geriatric patients exhibit heightened fragility due to age-related physiological changes and increasing comorbidities. Even minor traumas can lead to mortality and morbidity in these patients. Therefore, emergency department physicians must approach these cases with caution. This underscores the critical importance of tailored care strategies and vigilant monitoring to mitigate risks and improve outcomes in elderly patients with multiple comorbidities and heightened fragility.

Conflict of interest statement

The authors report no conflict of interest.

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