Letters to the Editor

New year’s eve pediatric celebratory gunshot wound

Dear Editor,

On New Year’s Eve in 2011, a 12-year-old boy was transferred to the level 1 trauma center after he collapsed in a field with blood perfusing from his head; he had been watching fireworks with his family. Airway, breathing, and circulation were intact. The Glasgow coma scale (GCS) eye, verbal, and motor subscores were 1, 1, and 5, respectively. He was able to move his extremities...
and respond to all stimuli. On the secondary survey, blood was present in his ear canals and nose. The right eye was marked with proptosis and infraorbital ecchymosis. The bilateral upgoing plantar reflex (Babinski’s sign) was noted. Initial laboratory examination was unremarkable. FAST exam was negative. The CT head study is shown in Figures 1 and 2. Based on the findings, the child was diagnosed with neurological trauma secondary to gunshot wound.

Standard in all head celebratory gunshot injuries (CGIs) and gunshot wounds (GSWs), consultations with trauma surgery, pediatric surgery, neurosurgery, and admission to pediatric ICU were expedited, followed by intensive therapy. The patient experienced full neurological recovery.

This case necessitated the basic understanding of physics, wound ballistics, unique considerations of CGIs, and associated legal issues. In general, the amount of energy transferred to the tissue is of greater importance than velocity. At the top of its parabolic flight, the combustive force equals the gravitational force and air resistance, creating a velocity of zero. Throughout this time-specific period, random external forces (wind patterns) change its flight trajectory. This is supported by injury data. In general, injury includes the following: The bullet pierces the skin and skull, causing a beveling or a crater defect and the formation of a tunnel that is 3–4 times its diameter due to cavitation and other injury mechanisms. Irregular bone fragments pass through the tissue. Periorbital ecchymosis (“raccoon eyes”) occurs due to orbital plate fractures or increasing cerebrospinal pressure. If there is an exit wound, it would generally form on the skull’s outer surface in the form of a crater due to the tumbling trajectory in situ.

Identifying CGI entrance and exit wounds is challenging due to the lack of forensic information such as soot deposits, seared wound edges, or tattoos from gunpowder deposits. Victims and eyewitnesses do not report hearing any related sound prior to the impact or any confrontation, as was reported in this case.

There are two notable legal considerations. First, most states have mandatory gunshot wound reporting. Various organizations voluntarily report and compile information nationally (Centers for Disease Control, etc). Additionally, emergency physicians can serve as witnesses in legal proceedings, sometimes 6–12 months after the patient is discharged, although rare in case of CGIs. Clinical findings and sensitive patient information can be utilized. This calls for prudent documentation and acquiring additional forensic education as needed. Physicians should continue to be stewards of patient privacy considering potential media involvement. Finally, preventative local advocacy efforts against CGIs can be strengthened with physician involvement. CGIs, although rare, present unique challenges in medical assessment, treatment, and documentation that have implications in daily clinical practice and future legal proceedings.

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Dear Editor,

Herein, we aim to report a case presenting concomitantly with ileus and diagnosed with chronic lymphocytic leukemia (CLL) and colon cancer.

A 66-year-old male patient was admitted to the emergency department with the complaints of vomiting for the last 5 days, flatulence, and inability to defecate. Laboratory findings were as follows: Hemoglobin, 11.6 g/dl; hematocrit, %35.9; white blood cell, 177,500/ml; lymphocyte, 118,925/ml; neutrophil, 2,124/ml; and platelet, 182,000/mm$^3$. Computed tomography scans of the abdomen revealed a mass structure in the sigmoid region. On the peripheral smear, there was a domination of mature lymphocytes, and the patient was diagnosed as CLL. Urgent surgery was performed, and a tumoral mass was observed at the descending colon–sigmoid colon junction. The pathological diagnosis was adenocarcinoma.

The present case is notable because synchronous CLL and colon cancer were observed. Colon adenocarcinoma might have developed as a secondary malignancy due to the prolonged presence of any immunosuppressant caused by CLL itself or in the form of a second primary as a result of a common gene such as p53 mutation involved in the carcinogenesis of both diseases.

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Dear Editor,

Patients of trauma surgical emergencies have a deranged coagulation profile at the time of admission, and, if misdiagnosed, the complications are numerous. [1] Prompt and proper identification of the underlying cause of these coagulation abnormalities is required, [2] since each coagulation disorder necessitates very different therapeutic management strategies. In a resource-constraint environment and developing countries, the basic tests for coagulation in practice are prothrombin time (PT), international normalized ratio (INR), and activated partial thromboplastin time (aPTT).

From June 2013 until September 2013, 100 patients admitted to the surgical emergency unit of the trauma center at KGMU were enrolled into four groups: Group 1...