

A medieval shot

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Case report:

A 45-year-old male was found in his garden with a self-inflicted head injury from a crossbow arrow lodged in his glabella. The patient was brought to the emergency room with venous access in place and supplemental oxygen. He was conscious with an initial Glasgow Coma Scale of 13/15 (E3V4M6). Sensorimotor examination was satisfactory. No cranial nerve deficits were detected. The cardiovascular and abdominal examinations were normal. The heart rate was 85/min, blood pressure 140/85mmHg and SpO₂ 100% with non-rebreathing mask.

Figure 1: Cranial CT showed the arrow penetrating the left frontal sinus through the left hemisphere to the occipital bone, which was perforated

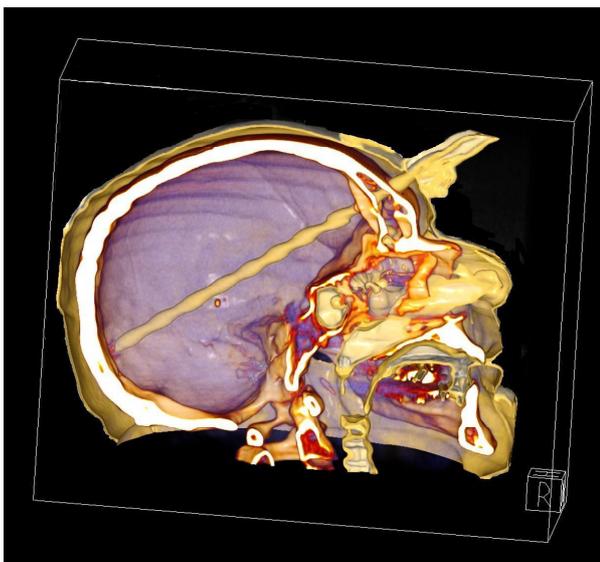


Figure 2: There was parenchymal bleeding 1cm diameter around the arrow.

Evolution: The patient was intubated for surgery. Unfortunately, despite minimal structural damage due to the low velocity of the arrow, the patient died from meningoencephalitis three weeks later.

Discussion and conclusion:

Despite the increasing popularity of crossbows in recreational hunting, crossbow injuries and deaths are rarely reported events. Suicide almost always occurs in male, with injuries affecting the head and thorax. Despite relatively low velocity and concussive force, the sharpness and propulsion force of crossbow bolts may be sufficient to enable penetration of the skull at short range. As illustrated by this case, coma or death may not be instantaneous. However, intra-parenchymal cerebral damage resulting from primary mechanical injury at the time of the insult may be worsened by secondary hypoxic damage, infection or bleeding, leading initially stable patients to adverse outcomes.