On-line Case Report

Tasers – less than lethal!

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ABSTRACT

We report a case of potentially lethal injury associated with the use of Taser. A 42-year-old man was stopped by police for potential detention. He held a large carving knife over his epigastrium threatening to stab himself. With a view to achieving immobilisation, a Taser gun was used. On activation of the Taser, the subject suffered a 7-cm wide and 10-cm deep stab injury to the upper abdomen. In this case, activation of the Taser resulted in the contraction of skeletal muscles, flexors more intensely than extensors, resulting in the stab injury.

Keywords: Taser – Muscle contraction – Stab wound

A Taser is an electroshock weapon used by the police and military to inflict pain and immobilise or restrain a person from the disadvantages of firearm-caused injuries and deaths. A Taser fires an air cartridge which, on activation, discharges two probes connected to the main unit by conductive wires. These attach to the subject; an electrical charge equivalent to 50,000 V is then delivered from the unit to the probes to achieve pain due to stimulation of sensory nerves and incapacitation due to contraction of skeletal muscles.^{1,2}

Use of Tasers is controversial and several safety concerns have been raised by non-governmental organisations like the Amnesty International which claims that the number of deaths directly resulting from Taser use exceed 150 and, in addition, there are several hundred cases of serious injury.² On the other hand, the company which manufactures these devices claims on its website: 'Since its introduction in 1999, advanced Taser technology has never caused fatality of a subject'.³

Case report

We report an interesting case of potentially lethal injury associated with the use of Taser. A 42-year-old man

suspected of parole violation was stopped by police for potential detention. He held a large carving knife over his epigastrium (Fig. 1) threatening to stab himself. With a view to achieving immobilisation, the Taser gun was used. On activation of the Taser, the subject suffered a 7-cm wide and 10-cm deep stab injury to the upper abdomen. At laparotomy, this was found to divide the falciform ligament, transect the anterior and posterior wall of the stomach and perforate the transverse mesocolon. There was an associated small bowel mesentery haematoma (Fig. 2). The stomach was successfully repaired and the subject was discharged on the fifth postoperative day.

Discussion

Use of Taser delivers a 50,000 V charge to the victim and causes sudden contraction of skeletal muscle leading to incapacitation.^{1,2} It is known that with the arm in a partially flexed position and in front of the body, flexor group of muscles are stronger than the extensor group.⁴ In this case, use of the Taser resulted in the contraction of skeletal muscles, flexors more intensely than extensors, resulting in the stab injury.

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Figure 1 Diagrammatic representation of the position of the victim at the time of injury.

This type of Taser-related injury has not been reported before and would be a potential area of knowledge for Taser users and also for the medical staff who may be responsible for treating patients in a similar situation.

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Figure 2 A forceps going through the tear in the anterior (A) and posterior (B) wall of stomach.

References

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