

Complications during shechita and halal slaughter without stunning in cattle

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Abstract

This paper summarises the findings from five studies in eight countries on over 1,500 cattle slaughtered commercially by the halal or shechita methods without stunning. It reports the number of cuts applied to the neck, the cutting methods and the frequency of complications during the bleeding period. Complications during the bleeding period that occurred in some cattle included: (i) delay in the time to collapse, which was interpreted as late loss of consciousness; (ii) premature arrest of bleeding from the carotid arteries due to false aneurysm formation; and (iii) blood entering the respiratory tract during bleeding. These features are important as they determine or reflect the duration of consciousness following the cut and the potential for protracted suffering from wound nociception or blood irritating the respiratory tract. When cattle were not restrained following the halal cut, they took on average 20 s to collapse. Fourteen percent stood up again after an initial collapse, and 1.5% took more than 4 min before their final collapse. Eight percent took 60 s or longer to collapse, and those animals were more likely to have false aneurysms in the severed ends of the carotid arteries. False aneurysms, which were at least 3 cm in diameter, formed in the severed cardiac ends of the carotid arteries in 10% of cattle slaughtered by halal or shechita. Some false aneurysms formed in the severed ends of the carotid arteries within 7 s of the halal cut, and in 10% of the cattle bloodflow came to a halt in one of the arteries within 10 s. On average, the false aneurysms developed within 21 s. Nineteen percent of cattle slaughtered by shechita and 58% of cattle slaughtered by halal had blood lining the mucosa of the trachea. All animals had blood lining the glottis. In both situations there could be a sense of respiratory tract irritation from the blood. It is proposed that severing the carotids at the position in the neck which corresponds to C1 will reduce the frequency of false aneurysm formation and subsequent arrested bloodflow from the severed arteries, and it will deafferent the respiratory tract reducing the transmission of potentially unpleasant sensory signals associated with blood contaminating the upper and lower parts of the tract. Most cattle subjected to halal and shechita have the neck cut at a position which corresponds to C2 to C4, and changing to a cut at C1 could partly reduce the potential for suffering during slaughter without stunning.

Keywords: animal welfare, bleeding, cattle, halal, shechita, slaughter