

Discussion of research that shows that Kosher or Halal Slaughter without stunning causes pain

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A study done in New Zealand in 2009 shows that slaughter without stunning causes pain. A new EEG (brainwave) method was used, which can determine when an animal is feeling pain. In these experiments, lightly anesthetized calves were cut with a very sharp knife that was 24.5 cm long. The weight of the calves was 109 to 170 kg. One reason why the calves were lightly anesthetized was to prevent animal movements (movement artifact) from changing and distorting the EEG patterns. The experiments showed that the calves would have been experiencing pain during the cut (Gibson et al, 2009 ab).

The knife used in this experiment was much shorter than the special long knives that are used in Kosher slaughter. The use of a shorter knife may possibly have had an effect on the painfulness of the cut. The author has observed that shorter knives, where the tip of the knife gouges into the wound during the cut, will cause struggling. An animal may also struggle when the wound closes back over the knife during the cut. Since the calves were anesthetized, it was impossible to observe behavioral reaction during the cut. From reading the methods sections in the papers, it was not possible to determine if the wound was held open during the cut, which may help reduce pain. The knife used in this experiment was similar to many of the knives the author has observed being used for halal slaughter. The special long knife used in kosher slaughter is important. When the knife is used correctly on adult cattle, there was little or no behavioral reaction (Grandin, 1992, 1994). Barnett et al (2007) reported similar reactions in chickens. Only four chickens out of 100 had a behavioral reaction. Grandin (1994) reported that the behavioral reaction of cattle was greater when a hand was waved in their faces compared to well done Kosher slaughter. All of the cattle were extensively raised animals with a large flight zone. They were all held in an upright position in a restraint box. The results of this study clearly show that the use of a knife with a 24.5 cm long blade definitely causes pain. Another factor that may have had an effect on pain was the use of a grinding wheel to sharpen the knife instead of a whet stone. There is a need to repeat this experiment with a Kosher knife and a skilled shochet who obeys all the Kosher rules for correct cutting.

A more recent study done by Sabow et al (2016) showed that halal slaughter without stunning "causes changes in the the EEG activities that are consistent with the presence of post slaughter noxious sensory input associated with tissue damage and would be expected to be experienced as pain in goats." The methods section of this paper contains NO description of either the knife or the restraint methods. It states that the standards of the country of Malaysia were followed. There is a

need to do research with EEG measurements when the special 1 mg kosher knife is used by a trained person.

Aspiration of Blood

Research also shows that cattle aspirate (inhale) blood into the lungs during Kosher and halal slaughter. This can vary from 36% to 69% (Gregory et al, 2008). The cattle were restrained in an upright position. The author has also observed aspiration of blood during Kosher and halal slaughter. It is the author's opinion that aspiration of blood is more likely to be a serious welfare problem for cattle, because bovines take longer to lose sensibility (consciousness) compared to sheep (Baldwin, 1971 and Blackmore, 1984). This provides more time for cattle to aspirate blood compared to sheep. Sheep lose sensibility more quickly due to differences in their blood vessel anatomy compared to cattle (Baldwin, 1971; Baldwin and Bell, 1963). See other articles on www.grandin.com on slaughter methods. The Gregory et al (2008) data was collected in commercial slaughter plants. Further research is needed to determine why some cattle aspirated blood and others did not. Possibly, improving procedures to facilitate rapid loss of sensibility may reduce aspiration of blood. This needs further research. [Click here](#) for article on methods to facilitate rapid loss of sensibility.

All of this research needs to be looked at in the perspective of the entire process. Abusive handling practices prior to slaughter and highly stressful methods of restraint may cause more suffering than the actual slaughter itself. The author has been in dreadful places where large, 600 kg cattle were hung up by one leg and they were all thrashing and bellowing. The OIE slaughter standards state that these stressful methods of restraint should not be used. Plants that use stressful methods of restraint such as shackling and hoisting or shackling and dragging need to stop using these abusive methods.

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