

Religious slaughter in Italy

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Abstract This research aims to understand the prevalence of religious slaughter practices in Italy. Two different ways of slaughtering animals are identified. Conventional slaughter is performed with prior stunning; kosher slaughter is practiced without stunning. Halal slaughter is performed for most animals without stunning. Halal slaughter with prior stunning is acceptable for 5.90% of small ruminants. For Halal slaughter in Italy, the terms “religious slaughter with stunning” and “religious slaughter without stunning” should be used to differentiate religious slaughter practices, keeping animal welfare in perspective.

Keywords Religious slaughter · Animal welfare · Stunning · Halal · Kosher

Introduction

The European Union currently funds a research project to study a number of issues regarding religious slaughter practices, the market, and customers. This work aims to assess the status of religious slaughter, comparing current Jewish (shechita or kosher) and Muslim (halal) practices performed in Italy.

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Materials and methods

The list of abattoirs authorized to perform religious slaughter in Italy was requested from the Italian Ministry of Health. A questionnaire was sent in September 2007 to the veterinary service of all 136 Italian abattoirs who are authorized to perform religious slaughter. In the spring of 2008, a second questionnaire was sent to the National Health Authority to obtain official data on religious slaughter. In September 2008, the minister asked the regional authority to send available data. Spot visits at four abattoirs (one for both halal and kosher practices) were carried out from October to December 2008. All the animals were slaughtered without stunning. During the spot visits, 243 slaughtered animals were recorded with a camcorder. Video image analysis of 282 minutes and 32 seconds was performed. In particular, the following categories were observed: 30 cattle for halal slaughter that were maintained in an upright position; six sheep for halal slaughter that were manually turned on their left side on the floor; 14 cattle for halal slaughter that were mechanically turned on their right side (90°) in a rotating pen; 79 sheep shackled before sticking for halal slaughter; and 114 sheep shackled before sticking for kosher slaughter.

Results

Twenty-nine questionnaires were returned: 25 for halal slaughter; 3 for kosher slaughter; and 1 questionnaire was received without data for privacy reasons. In particular, for halal practice, 9 questionnaires were analyzed for cattle, 12 were analyzed for small ruminants, and 4 questionnaires were analyzed for poultry. For kosher practice, one questionnaire was analyzed for each category (cattle, small ruminants, and poultry). Eighteen percent of the abattoirs replied to the questionnaire that was sent to the veterinary service of all 136 Italian slaughterhouses that are authorized to practice religious slaughter. Seventy-seven percent of abattoirs did not reply, and 5% of abattoirs had provided an incorrect address. Results from the questionnaires may not be representative of the practices in the entire nation; however, they represent an initial attempt to understand the scale of ritual slaughter practices in Italy.

Conventional slaughter (stunning before sticking) at the interviewed abattoirs is practiced for 95.30% of cattle, 90.37% of small ruminants, and 98.69% of poultry. Halal slaughter is performed for 4.27% of cattle, 5.47% of small ruminants, and 1.31% of poultry. Kosher slaughter is practiced for 0.43% of cattle, 4.16% of small ruminants, and almost no poultry. For halal slaughter, 100% of cattle, 100% of poultry, and 94.10% of small ruminants are slaughtered without stunning, while 5.90% of small ruminants are halal slaughtered with prior head-only electrical stunning with an average voltage of 265 V, an average intensity of 2 amperes and an average time of 4 seconds. Stunning after sticking is not practiced for any category of animals for religious slaughter. No animals are stunned for kosher slaughter.

Regarding the restraint method, the percentages of unstunned halal-slaughtered animals are the following: upright position for 100% of cattle; shackled before sticking for 100% of poultry; 29.1% and 67.5% of small ruminants turned on their back on the floor and turned on their side on the floor, respectively; and 1.2% and 2.2% of small ruminants turned on their back on a table and turned on their side on a table, respectively. Stunned small ruminants that are halal slaughtered are turned on their side on the floor before sticking. Kosher-slaughtered cattle are restrained in the upright position. Kosher-slaughtered small ruminants are shackled before sticking. Kosher-slaughtered poultry are manually restrained. The questionnaires sent to the competent authority provide the following official data: the

number of halal-slaughtered animals is calculated as the sum of the partial amounts of unstunned and stunned animals before and after sticking for halal practice in 2006. The number of halal-slaughtered cattle comes to 35,446, representing 6.8% of all cattle slaughtered. The total number of halal-slaughtered small ruminants is 1,985, or 6.1% of all small ruminants slaughtered. Halal-slaughtered poultry totals 600,832, representing 3.8% of all poultry slaughtered. In 2006, halal slaughter without stunning was practiced for 15.4%, 96.8%, and 100% of cattle, small ruminants, and poultry, respectively. In 2006, halal slaughter with stunning before sticking was practiced for 74.6%, 3.2%, and 0% of cattle, small ruminants, and poultry, respectively. In 2006, halal slaughter with stunning after sticking was practiced for 10%, 0%, and 0% of cattle, small ruminants, and poultry, respectively.

Halal meat produced in Italy is not exported abroad. No information is available for kosher practice as official data. The following results were obtained from the spot visits at abattoirs where religious slaughter is performed, which may not be representative of all ritual practices nationwide. The average time from the beginning of restraint to sticking is 97.5 seconds for halal-slaughtered cattle in the upright position; 115.8 seconds for halal-slaughtered cattle mechanically turned; 21.3 seconds for halal-slaughtered sheep manually turned; 57.2 seconds for halal-slaughtered sheep shackled before sticking, and 228.8 seconds for kosher-slaughtered sheep shackled before sticking. The average time from sticking to next handling is 93.3 seconds for halal-slaughtered cattle in upright position; 144.1 seconds for halal-slaughtered cattle mechanically turned; 105.8 seconds for halal-slaughtered sheep manually turned; more than 379.3 and 677.3 seconds for halal-slaughtered sheep shackled before sticking and for kosher-slaughtered sheep shackled before sticking, respectively.

Regarding the number of animals observed per abattoir, the percentages of animals showing excitement during sticking are 23.3% of halal-slaughtered cattle in the upright position; 42.9% of halal-slaughtered cattle mechanically turned; 33.3% of halal-slaughtered sheep manually turned; 34.2% of halal-slaughtered sheep shackled before sticking, and 31.6% of kosher-slaughtered sheep shackled before sticking. Regarding the total number of animals per abattoir, the average number of cutting movements made with the knife during sticking and, in parentheses, the percentage of the observed animals for this parameter are 25.2 (96.7%) for halal-slaughtered cattle in the upright position; 7.4 (100%) for halal-slaughtered cattle mechanically turned; 3 (100%) for halal-slaughtered sheep manually turned; 2.9 (46.8%) for halal-slaughtered sheep shackled before sticking, and 1.25 (21.1%) for kosher-slaughtered sheep shackled before sticking. The average time of struggling is determined by adding the partial durations of the coordinated movements shown by each animal and calculating the arithmetic average for the number of animals observed for this parameter. The average duration of struggling before sticking is 14.7 seconds for halal-slaughtered cattle in the upright position; 31.3 seconds for halal-slaughtered cattle mechanically turned; 5.25 seconds for halal-slaughtered sheep manually turned; 13.1 and 23.6 seconds, respectively, for halal-slaughtered and kosher-slaughtered sheep shackled before sticking. The average duration of struggling after sticking is 12.4 seconds for halal-slaughtered cattle in the upright position; 8.6 seconds for halal-slaughtered cattle mechanically turned; 5.75 seconds for halal-slaughtered sheep manually turned; 4.1 and 4.2 seconds for halal- and kosher-slaughtered sheep shackled before sticking, respectively. Regarding the total number of animals per abattoir, the average time until loss of rhythmic breathing after sticking and, in parentheses, the percentage of the animals observed for this parameter are 85.1 seconds (90%) for halal-slaughtered cattle in the upright position; 99.8 seconds (92.9%) for halal-slaughtered cattle mechanically turned; 29 seconds (83.3%) for

halal-slaughtered sheep manually turned; and not detectable for halal-slaughtered and kosher-slaughtered sheep shackled before sticking.

Discussion

Kosher slaughter is performed without stunning in Italy, while halal slaughter is practiced with stunning before sticking for 5.90% of small ruminants. Therefore, halal slaughter should not necessarily be identified as slaughter without stunning. Head-only electrical stunning allows a reversible process with the animal awakening when it is stunned and not successively stuck. In the scientific literature, evoked responses in the brain have been studied to assess consciousness in animals. An evoked response is the electrical activity in the brain, and it occurs as a response to an external stimulus. The disappearance of any response indicates a loss of ability to perceive the stimulus (Gregory 1998). The duration of brain function after sticking is quite variable for evoked potentials during kosher slaughter, whereas captive bolt stunning followed by sticking results in an immediate and irreversible lost of evoked potentials in a study on cattle (Daly et al. 1988). The potential risk of the animal remaining conscious after sticking is an animal welfare issue (Cenci Goga et al. 2004), necessitating the encouragement of stunning during religious slaughter where it can be accepted by religious communities. In Italy, halal and kosher slaughter are practiced for cattle, small ruminants, and poultry. Differences exist regarding restraint systems among the religious slaughter practices. Italian legislative decree 333/98 (Anon. 1998), as provided by European Directive 93/119/EC (European Community 1993), forbids the shackling of small ruminants before sticking. During sticking, the average number of cutting movements may be related to the restraint system, placing importance on the manual skill of the operator. The difference in the average number of cutting movements between kosher- and halal-shackled and -slaughtered sheep could be explained by the operator's skill in sticking. The longer duration of the average time of struggling after sticking for cattle compared to sheep can be explained by the presence of encephalic sprinkling that is represented by the anastomosis between the vertebral arteries and branches of the carotid arteries. This kind of sprinkling is present in cattle species and absent in sheep species (Gregory 1998). Vertebral arteries are not cut during sticking. An implementation of Italian legislative decree 333/98 is desirable from an animal welfare perspective.

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