

# Halal and humane slaughter; Comparison between Islamic teachings and modern methods

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## ABSTRACT

Islam permits the consumption of meat of halal animals/birds, only when these have been slaughtered in the prescribed manner. This involves, while reciting the name of Allah, making a quick incision on the front of the neck to cut carotid arteries, jugular veins, windpipe and oesophagus. The prerequisites include laying the animal on its left flank, preferably facing towards *Kibla*. This enables maximum bleeding, and easy unpainful death in a few seconds. Pre-slaughter management of the animals requires that they should be healthy, and not stressed, fatigued, excited or neurotic. The current slaughtering method, or the humane slaughter, follows these Islamic guidelines. The only difference is that Muslims recite the name of Allah while making an incision, whereas the modern method followed by non-Muslims does not include this in the procedure. This paper discusses the halal slaughtering method and provides the Islamic teachings in comparison with modern slaughtering methods.

**Key words:** Halal slaughter, Humane slaughter, Muslim, Animal rights, *Dhabiha*

## INTRODUCTION

Halal slaughter or '*dhabiha*' refers to bleeding animals destined for meat by following the method prescribed by the Holy Quran and supplemented by the "Ahadith" (Traditions), the sayings and practices of the Holy Prophet Muhammad (ﷺ) (Riaz and Chaudry, 2004). In this method, animals are bled by making an incision in front of the neck above the epiglottis with a sharp knife while they are conscious. The Animal Rights Activists raise objection to this by arguing that this method is cruel, barbaric and painful (Hamadan, 2012). Hence, stunning has been introduced to make the animal unconscious so that it does not feel the pain (Anil *et al.*, 1998).

Meat is indispensable for sound human health. It provides several vital nutrients like essential amino acids, fatty acids, mineral elements and vitamins necessary for regulatory functions, growth and repair of various body tissues (Awan, 2011). However, it is subject to spoilage by an array of chemical and biochemical reactions as well as a variety of biological agents, which may also be responsible for food-borne diseases (Awan and Anjum, 2010). Hence, meat has to be produced in a manner that will minimize microbial contamination as well as chemical and biochemical changes. This will prevent the chances of bacterial contamination and growth so that its quality does not deteriorate. The consumption of meat in Islam is regulated by the directives of the Almighty Allah and the *Ahadith* of the Holy Prophet Muhammad (ﷺ). Meat of dead animals is forbidden in the Holy Scriptures as is reflected in the following verse from the Holy Bible (Holy Bible, 1976): "Ye shall not eat of anything that dieth of itself; thou shalt give it unto stranger that is in thy gates, that he may eat it; or thou mayest sell it unto an alien: for thou art an holy people unto the LORD thy God. Thou shalt not see the

a kid in his mother's milk" (Deut. 14:21). Similar command is given in the Holy Quran (Usmani, 2005):

Forbidden to you for food, are: dead meat, blood, the flesh of swine, and that on which hath been invoked the name of other than God; that which hath been killed by strangling, or by a violent blow, or by a head long fall, or by being gored to death; that which hath been partly eaten by a wild animal, unless ye are able to slaughter it in due form. V:4	حَرَّمَ عَلَيْنَا مِمَّا ذُكِّرَ بِهِ وَلَهُمُ الْخُزَيْرُ وَمَا هَلَكَ لغيرِ اللَّهِ بِهِ وَالْمَنْخَنَقَةُ وَالْمَوْقُوذَةُ وَالْمُتَرَدِّيَةُ وَالنَّطِيحَةُ وَمَا أَكَلَ السَّبُعُ إِلَّا مَا ذَكَّيْتُمْ وَمَا ذُبِحَ عَلَى النُّصُبِ وَأَنْ تَسْتَقْسِمُوا بِالْأَزْلَامِ ذَلِكَ فِسْقٌ الْيَوْمَ بَيِّنَ الَّذِينَ كَفَرُوا مِنْ دِينِكُمْ فَلَا تَخْشَوْهُمْ وَاخْشَوْنِي الْيَوْمَ أَكْمَلْتُ لَكُمْ دِينَكُمْ وَأَتَمَمْتُ عَلَيْكُمْ نِعْمَتِي وَرَضِيْتُ لَكُمْ الْإِسْلَامَ دِينًا فَمَنْ اضْطُرَّ فِي مَخْمَصَةٍ غَيْرِ مُتَجَانِفٍ لِإِثْمٍ فَإِنَّ اللَّهَ غَفُورٌ رَحِيمٌ - (المائدة: 4)
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Slaughtering of lawful animals and birds is essentially performed for preparing them for food purposes. In Islam pre-slaughter management and bleeding methods are primarily regulated by the directions of the Almighty Allah and the sayings and practices of the Holy Prophet (ﷺ). People belonging to other religions follow the rules prescribed for them in their holy books. Various governmental agencies in the world regulate this with their own laws. Among the earliest recorded laws on handling, care and slaughter of animals are several *Ahadith* by the Holy Prophet, Muhammad (ﷺ), which are often in response to some queries or as a result of His (ﷺ) personal observations. These guidelines were laid down over 1400 years ago. The modern methods of handling and care of animals destined for slaughter have their roots in the Islamic guidelines since Islam has provided elaborate regulations on these issues. Accordingly, the teachings of Islam regarding slaughtering procedure are hereby

reviewed and compared with the modern techniques or the humane slaughter.

## 1. PRE-SLAUGHTER HANDLING OF ANIMALS

### 1.1. Selection of Animals

There are hundreds of species of animals and birds on this planet Earth. However, selection of the animals for food purposes is regulated by, among others, religion, peer influences, country laws, and personal likes and dislikes. Over the period of time, man has selected animals and birds that are to his liking or that are permitted by his religion.

**Islamic Teachings:** Among the numerous species of animals and birds on the planet Earth, Islam has permitted consumption of a few only. Islam strictly prohibits pork, carnivorous animals and birds of prey (Awan 1988).

<p>Ibn 'Abbas reported that Allah's Messenger (ﷺ) prohibited the eating of all fanged beasts of prey, and all the birds having talons. (Sahih Muslim Book 21 Hadith 4752)</p>	<p>وَحَدَّثَنَا عَبْدُ اللَّهِ بْنُ مُعَاذٍ الْغَنَظَرِيُّ، حَدَّثَنَا أَبِي، حَدَّثَنَا شُعْبَةَ، عَنِ الْحَكَمِ، عَنْ مَيْمُونِ بْنِ مُهْرَانَ عَنِ ابْنِ عَبَّاسٍ، قَالَ نَهَى رَسُولُ اللَّهِ صَلَّى اللَّهُ عَلَيْهِ وَسَلَّمَ عَنْ كُلِّ ذِي نَابٍ مِنَ السَّبَاعِ وَعَنْ كُلِّ ذِي مَخْلَبٍ مِنَ الطَّيْرِ ۝</p>
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In prescribing the characteristics of lawful animals, the Holy Quran and *Sunnah* permit consumption of meat of all herbivorous ruminants that are even-toed such as cattle, camel, goat, lamb and similar animals (Awan 1989). The animals meant for slaughter should be healthy and free from any apparent or hidden ailments. Furthermore, the animal must be legally owned. Of the lawful animals, blood and carrion or animals that have died a natural death are prohibited. Similarly, lawful animals that have died as a result of beating or strangling or falling from a height or by the goring of horns or devoured of wild beasts are also prohibited. Furthermore, animals dedicated to others than Allah and those immolated to idols have also been declared unlawful (haram) for food (Awan 1988).

**Modern Requirements:** In modern abattoirs apart from the permitted lawful animals in Islam such as cattle, goat, lamb, etc., some others like pigs are also slaughtered. Dead animals are not brought to the abattoirs. All animals meant for slaughtering must be healthy which is determined by their pre-slaughter inspection. This precludes the slaughter of sick and dead animals. This assignment is undertaken by the veterinarians/meat inspectors appointed in the abattoirs.

### 1.2. Pre-slaughtering Treatment of Animals

Meat is a very delicate commodity and lends itself to spoilage easily. Hence, there are strict regulations as to how the animals destined for slaughter should be treated so

that good quality meat is obtained. These regulations are based on scientific evidence. However, in Islam the regulations have been given long before any scientific data was generated on the pre-slaughter care and treatment of animals.

**Islamic Teachings:** The Islamic injunctions promote that animals should not be stressed, fatigued, excited or nervous prior to slaughtering. The Holy Prophet (ﷺ) advised his companions to sharpen the knives to their best and further instructed that this operation should not be performed in front of the slaying animal. This is best illustrated by the following *Hadith*: 'once a follower cast his goat to the ground, pressed its head with his foot and started sharpening the knife while the animal was watching. The Holy Prophet Muhammad (ﷺ) asked the person as to how many times he wished to kill the goat and why he did not sharpen his knife before laying the goat' (Al Qardawi, 1983). This *Hadith* clearly reflects that any act that may cause nervousness or excitement or other abnormal behavioural changes in the animal is not permitted. Similarly, the practice of collective slaughtering, in which other animals view their companion being killed, is also prohibited in Islam (Al-Abbadi, 1988).

**Modern Findings:** The requirements in the modern abattoirs are exactly the same as laid down by Islam over 1400 years ago. The researchers have recognized that, apart from being inhumane, rough handling of animals in the immediate pre-slaughter period will adversely affect the quality of meat (Gracey, 1981). It is known that both fear and pain affect eventual meat quality (Grandin & Regenstien, 1994). The modern scientific methods necessitate that the animal should not be subjected to any kind of stress, fatigue, or nervousness prior to slaughtering. Such conditions result in dark, firm and dry meat. This is an undesirable condition in which the colour of the musculature, as a whole or in some parts of the freshly killed animals, is appreciably darker and drier than normal. Proper relaxation before slaughtering helps the animal to bleed well. This also builds up muscle glycogen that is essential to lower the ultimate pH (acidity) level of meat that results in increased storage life by reducing the chances of microbial growth, in addition to improving its taste due to conditioning/tenderness. Moreover, it helps to delay or reduce fermentation in the stomach which may, otherwise, give meat a characteristic smell known as 'bone taint' (Mitchell, 1980). In fatigued animals or those that have starved for prolonged periods, organisms from the gut may invade the blood stream and eventually the muscles (Jay, 2012).

It is generally regarded as undesirable that an animal awaiting slaughter should view the slaughtering process (Grandin, 2013). When animals undergo stress leading to such states as undue emotional instability, fatigue, anorexia, etc., they react by discharging hormones from the

adrenal glands. These hormones, adrenaline from the adrenal medulla, and 17 hydroxy- and 11-deoxycorticosterones from the adrenal cortex, deplete muscle glycogen and potassium which have deleterious effects on the quality of meat (Gracey, 1981). In order to prevent these adverse effects, tranquilizers are now-a-days recommended to calm the stocks in transit.

### Feeding the Animals

Quite often, the animals destined for slaughtering have to travel long distances. During this period they are often not given any water or feed and are usually under stress. Hence, when the animals reach the market or the abattoirs they are kept in lairages where they have access to feed and water and are given time to rest. However, there are divided opinions as to when the feed should be withdrawn from the animals.

**Islamic Teachings:** The Holy Prophet Muhammad (ﷺ) advised that animals destined for slaughter should be well fed and provided with drinking water (Mishkat Sharif 3875). It is, therefore, preferable that animals should have free access to feed and water while waiting prior to slaughtering.

**Modern Practices:** There is a general practice to withhold food from animals few hours prior to slaughter. Supporters of this exercise contend that fasted animals bleed better; that the carcass is easier to dress and that it has a brighter appearance. Other reasons advanced in support of fasting animals before slaughter include reduced bulk of animal's stomach, thereby lowering the chances of bacterial contamination from the contents of the gut. Hence, fasting is generally recommended for animals before slaughtering in the modern abattoirs. However, scientific evidence for this is lacking since the hungry animal does not settle as well as an animal that has been well fed (Gracey, 1981). Numerous disadvantages of fasting have also been recorded including loss in weight of the carcass and liver. Moreover, inadequate feeding before slaughter tends to lower the glycogen reserves in the muscles, thus reducing the gustative and keeping qualities of the meat (Pereira *et al.*, 2013).

On the other hand, if the animals are well fed, the glycogen in the muscle reaches a higher level. This is considered desirable to ensure the production of adequate amount of lactic acid after slaughter and to lower the pH of meat. Thus, meat has a good appearance, taste, tenderness, and longer shelf-life (Lawrie, 2006). It is well known that pathogenic and meat spoiling bacteria prefer to grow at high pH levels around pH 7.0, while most bacteria, especially those causing food poisoning do not grow at pH below 3.5 (Antoniou *et al.*, 1990). Although pH of fresh meat can never reach this low level, yet any decrease from its normal value of about 6.8 will reduce the chances of bacterial multiplication, especially those responsible for

food poisoning. In meat of soothed and well-fed animals, the pH attains 5.5 or even lower level, whereas in fatigued or neurotic animals, it can be in the range of 6.5 to 7.0. To produce meat of good keeping and eating qualities, it is often recommended to feed animals prior to slaughtering - in some cases sugar solution is fed to quickly restore the glycogen level in the tissues (Hui, 2012).

### Slaughtering Procedure; Animal Positioning

The two essentials in the slaughter of animals for meat are that the animals are dispatched without unnecessary suffering and that bleeding is as complete as possible (Gracey, 1981). The position of the animal for bleeding has an impact on the quantity of blood lost from the carcass. On a small scale, the animals are laid to the ground while the commercial slaughterhouses prefer that the animals are shackled with their hind legs and are hung vertically for bleeding.

**Islamic Teachings:** The Islamic method of slaughtering requires laying the animal on its left flank preferably facing the *Kibla*. When animal is laid on its left flank, there is the likelihood of more blood to be drained owing to body pressure on the heart. The positioning of animal in the Islamic method clearly prevents retraction of carotids and ensures rapid onset of unconsciousness and a painless death. Thus, Islamic method of slaughtering, in which maximum blood is managed to drain from the body of the animal, outranks other slaughtering techniques.

**Modern Practices:** In the modern abattoirs, the large animals are first stunned and then hanged with legs tied to the shackles. In case of poultry, the birds are first hanged vertically and then stunned. Bleeding operation, primarily mechanical, is conducted while the animal is in this hanging or vertical position.

Laying the animal enables it to convulse which results from the contraction of muscles in response to lack of oxygen in the brain cells when the incision has been made in the neck. Violent convulsions increase the acidity in the muscles that increases the palatability and shelf life of the meat (Dembo, 1894). During convulsions blood is squeezed out of the vessels in the body. Hence, more blood drains out which is a pre-requisite for superior quality meat. There is evidence suggesting that more blood is lost from sheep in the horizontal position than from those hung vertically (Blackmore and Newhook, 1976; Johnson *et al.*, 2015). Contrarily, it has been reported that bleeding is more effective in cattle hung vertically by the shackling of the hind legs than in those bled in a horizontal position (Gracey, 1981).

### Bleeding or Exsanguination

Bleeding, in the present context, only relates to those animals and birds that are in complete physical control of man and are halal. Hence, these regulations apply to all

domesticated birds and animals except camel which is bled by a method known as 'nahr' - this involves piercing the throat of the camel with a sharp, spear-like instrument while standing; blood streams out and bleeding ultimately makes the animal fall lifeless to the ground. Any animal or bird that has gone wild and cannot be reached or caught, falls under the category of 'game animal' for which different rituals apply (*aqr*).

Conventionally, bleeding process depends on the religious practices and the country legislations. While Muslims and Jews are not in favour of stunning, the Western countries require that animals be stunned prior to bleeding to reduce the pain purportedly caused by the knife. Similarly, posture of the animal and bleeding methods are governed by the religious and national legislations.

Globally, several methods of bleeding/killing animals have been/are in vogue. The Germans used to kill by boring which brought death to the animals instantly (Khan, 1926). In South America, pithing or destruction of the junction of the medulla oblongata and the spinal cord in cattle is practiced. In the traditional New Zealand method, fully conscious animals are slaughtered by almost simultaneous severance of the major blood vessels of the neck and spinal cord at the occipito-atlantal junction (Blackmore and Newhook, 1976). The Sikhs perform 'jhatka' - means jerk where sheep and goats are decapitated by a single slash of sword. In modern methods domestic fowls and turkeys may also be slaughtered by means of decapitation or dislocation of the neck. In the present-day slaughterhouses, the anterior vena cava is severed on one side in cattle and the carotid arteries in goats and sheep (Sargentini *et al.*, 2016). Currently there are four techniques of bleeding namely the western or modern method, the Islamic, the Jewish and the 'jhatka' methods.

<p>“So eat of meats on which God’s name has been pronounced if ye have faith in His Signs. VI:118</p>	<p>فَكُلُوا مِمَّا ذَكَرَ اسْمُ اللَّهِ عَلَيْهِ أَنْ كُنْتُمْ بآيَاتِهِ مُؤْمِنِينَ الْأَنْعَامِ 118</p>
<p>Do not eat that (meat) over which the name of Allah has not been pronounced. This is surely a sin. The satans inspire their friends to dispute with you. If you were to obey them, you would be Pagans. VI:121 .</p>	<p>وَلَا تَأْكُلُوا مِمَّا لَمْ يَذْكَرْ اسْمُ اللَّهِ عَلَيْهِ وَإِنَّهُ لَفِسْقٌ وَإِنَّ الشَّيَاطِينَ لَيُوحُونَ إِلَى أَوْلِيَآئِهِمْ لِيُجَادِلُوكُمْ وَإِنْ أَطَعْتُمُوهُمْ إِنَّكُمْ لَمُشْرِكُونَ الْأَنْعَامِ 121</p>

**Islamic Teachings** - The Islamic method of slaughtering is based on two important principles namely *Tasmiya* and *Tazkiyah*. *Tasmiya* refers to invoking the name of Allah and means that the slaughter is being done with His permission. While making the incision using a very sharp knife, the name of Allah is recited in the form of *Subhan Allah*, or *La illaha illa lila ho*, or *Allah-o-Akbar* or preferably *Bismillah Allah-o-Akbar* (Al Jazeri, 1941). This is in accordance with several commands given in the Holy

Quran (Maudoodi, 1976). *Tazkiyah* means purification, *i.e.*, removing blood from the meat by slaughter. This is done by making an incision just below the glottis and base of the neck, except camel. In this process the trachea, oesophagus, carotid arteries and jugular veins are severed without injuring the spinal cord. It is abominable to cut off the head or break the neck of the animal or cut any part of the body while it is still alive.

Consumption of blood as food is prohibited in the Holy Scriptures as contained in Leviticus 3:17 and 7:26 of the Holy Bible and verse VI:146 of the Holy Quran. All lawful animals and birds contain blood that must be drained in accordance with these commands. Furthermore, the person slaughtering the animal must be an adult Muslim or one of those who believe in the Holy Scriptures and should be in possession of his mental faculties (Samiullah, 1982). The Holy Prophet, Muhammed (ﷺ), gave comprehensive guidelines on slaughtering of animals in the following Hadith (Khan, 1982): “*Verily Allah, has prescribed proficiency in all things. Thus, if you kill, kill well; and if you slaughter, slaughter well. Let each one of you sharpen his blade and let him spare suffering to the animal he slaughters*”.

It is worth noting that Islam talked about sparing suffering to the animals long before the modern scientists found that the slaughtering process could be painful. The actual process of slaughtering in Islam requires laying the animal, except camel, on its left flank preferably facing *Kibla* (Al-Abbadi, 1988). The throat is cut transversely to sever the carotid arteries, jugular veins, oesophagus and trachea without injuring the spinal cord. The Islamic method ensures maximum blood drainage from the body before completion of death process. In this method the connection between the brain and body is retained via the spinal cord. The brain continues to send messages to the heart and lungs. The heart keeps pumping blood to various parts of the body, which is drained out from the severed blood vessels in the neck. When both carotid arteries are severed, as in the Islamic or Jewish methods, unconsciousness comes in 3 to 5 seconds (Dembo, 1894). In a study by Blackmore and Newhook (1976) unconsciousness in sheep is induced between 3-6 seconds when carotid arteries are severed. In a comparative study for different methods of slaughtering, it has been reported that maximum blood is lost when Kosher method of slaughtering, similar to the Islamic method as regards its physical details, is employed and minimum when the chicken are beheaded (Clottey, 2011). The practice of cutting off parts of an animal or removing its skin while it is still alive, is condemned (Mishkat Sharif, 3890, 3894). Detailed description regarding the religious requirements of slaughtering supported by appropriate *Ahadith* have been given by Al-Abbadi (1988) and Al Khayat (1981).

**Modern requirements:** Stunning is widely practiced before bleeding in the Western abattoirs to make the animals and birds unconscious and calm. In Islam there is no such provision and it advocates slaughtering of animals while they are conscious. It has been suggested that the use of an exquisitely sharp knife produces minimal behavioral reactions in animals and as a result, the neck cut is not perceived as painful by the animal (Regenstein, 2012).

There have been heated debates on whether or not Muslims could eat meat of animals that have been bled after stunning, even if all the other essential requirements have been fulfilled. Views have been expressed in favour and against by numerous Islamic scholars. It seems that the bone of contention is that animal may die as a result of stunning (Fuseini et al., 2016). According to Usmani (2004) stunning prior to halal slaughter is permissible if it is shown conclusively that this operation reduces pain to the animal, and that the animal does not die from being stunned. The advocates of stunning argue that this process reduces the pain of the cut and makes the animal unconscious so that a gentle and painless death may be brought about.

In the present era, stunning is essential for the mechanical slaughtering process in which the cost of production need to be reduced by slaughtering more animals in less time. Numerous stunning techniques have been in vogue some of which have been abandoned due to certain defects. The oldest method of stunning, that has been discontinued now, involved hitting the animal on its head with a hammer. This was used for large animals such as bulls to save the slaughterer being attacked or injured by the animal (Dembo, 1894; Carlsson et al., 2007). Through continuous experimentation pole-axe, free bullet, captive bolt pistol, concussion stunner, electrical stunning and gas stunning are some techniques that have been evolved and recommended for the purpose. Some of these are still applied in the Western abattoirs. There is no standard method that can be applied to all animals under all conditions. It has been concluded that any attempt to standardize stunning method must specify numerous details including proper pre-slaughter treatment of animals as an integral part of overall procedure (Farouk et al., 2014). In as much as these techniques could be effective in having a calm animal before slaughtering, it may be mentioned that some of them adversely affect the quality of carcass by causing injury to medulla oblongata in the brain which controls blood circulation and respiration. It is desirable that these systems should continue to function for some time since they help to pump blood out of the carcass when blood vessels in the neck are severed. The major benefit of stunning is to have a calm animal so that more animals are slaughtered in less time.

The scientific literature reveals that stunning can be detrimental to the animal or the quality of meat or even the

operator. The method of shooting by a free bullet may be too dangerous to use in the abattoirs. However, the captive bolt method is quite commonly applied (Atkinson et al., 2013). Electrical stunning which is widely used now-a-days, especially for poultry, has been found to increase the frequency of "blood splash", i.e., the appearance of numbers of small dark red areas in the muscles/meat. It also probably lowers the glycogen reserves of the muscle. It is estimated that in approximately 5% of the electrically stunned animals heart failure is induced - a situation in which the animal is dead before an incision is made. Hence, consumers eat carrion and not meat. This is not only objectionable in the Western World, but is also prohibited by the Holy Scriptures (Koutsoumanis et al., 2006). Similarly, while applying gas anesthesia, it is important that exact composition and dose of the gas for a specific length of time be administered, which does not seem possible with all animals under all conditions. The practice of stunning animals prior to slaughtering is the outcome of industrial revolution in the West in which maximum animals are required to be slaughtered in least possible time to save the cost. Though the industrial revolution has provided mankind with innumerable benefits, yet it has inflicted damaging blows on some aspects of human nutrition.

Blood is an excellent medium for the growth of microorganisms. Hence, meat retaining more blood than a critical level is liable to rapid bacterial spoilage. Moreover, its retention in the tissues can cause unpleasant appearance and discoloration in meat (Lawrie, 2006). The keeping and eating qualities of meat depend, in part, on the removal of as much blood as possible from the carcass. It is recognized that in order to produce a good carcass the animal must be bled effectively, for which heart and respiratory systems must function continuously after severance as long as possible. This is attained most thoroughly when heart and respiratory functions as in the Islamic method are retained by maintaining the medulla oblongata/spinal cord (Velarde, et al., 2014).

## CONCLUSION

Islam took care of animal rights long before even the human rights were recognized in the Western World. Numerous *Ahadith* are abound which reflect that Islam advocates kindness and mercy towards animals. The current scientific data also reveals that the Islamic recommendations for slaughtering are highly rational and scientific. Good physique and health are considered a basic requisite for selection of food animals. The pre-slaughter management of animals requires that they should not be fatigued, excited, nervous or stressed. It is well documented that proper rest, absence of hunger and thirst and the use of a sharp knife alleviate pain of death. The stunning practice advocated in the West as humane, is not in accordance with the Islamic teachings. The bleeding

method in Islam is also superior to other methods since it ensures maximum bleeding and makes the animal lose consciousness within few seconds. The meat thus has minimum blood in it and hence, is of superior quality in terms of appearance, taste and shelf life. Islam is a complete way of life.

#### Conflict of interest

The authors declare none conflict of interest.

#### REFERENCES

1. Al Jazeri, Abdur Rehman. 1941. Kitab-e-Fiqah - Book of Laws. Urdu translation from Arabic by Manzoor Ahsan Abbasi. Publications Section, Punjab Auqaf Dept., Lahore, Pakistan
2. Al Khayat, Abdel Aziz. 1981. Al atamaill waal zibah fi Islam. Food and slaughtering in Islam - in Arabic. Ministry of Awqaf, Amman.
3. Al Qardawi, Y. 1983. Islam mein halal o haram, (Lawful and unlawful in Islam). Urdu translation from Arabic by Shamas Pirzada. Islamic Publications Ltd., Lahore, Pakistan.
4. Al-Abbadi, Abdullah Abdur Rahim.1988. Zabiha ke ehkam o masail (Rules and regulations on slaughtering). Urdu translation from Arabic by Hafiz Muhammad Abdul Ghafoor. Islamic Res. Inst., Islamic Intl. Univ., Islamabad.
5. Anil, M.H., A.B.M. Raj and J.L. McKinstry. 1998. Electrical stunning in commercial rabbits: effective currents, spontaneous physical activity and reflex behaviour. *Meat Sci.* 48(1): 21-28.
6. Antoniou, P., J. Hamilton, B. Koopman, R. Jain, B. Holloway, G. Lyberatos, and S.A. Svoronos. 1990. Effect of temperature and pH on the effective maximum specific growth rate of nitrifying bacteria. *Water Res.* 24(1): 97-101.
7. Atkinson, S., Velarde, A., and Algers, B. 2013. Assessment of stun quality at commercial slaughter in cattle shot with captive bolt. *Animal Welfare* 22:473-481.
8. Awan J.A. 1988. Islamic food laws – I. Philosophy of the prohibition of unlawful foods. *Sci. Tech. in the Islamic World* 6:151-165.
9. Awan J.A. 2011. Food and Nutrition. Unitech Communications, Faisalabad.
10. Awan J.A. and Anjum F.M. 2010. Food toxicology. Unitech Communications, Faisalabad.
11. Awan J.A.1989. Islamic food laws –II. The philosophy of the lawful foods. *Sci. Tech. in the Islamic World* 7:21-35.
12. Ayres J.C., Mundt J.O. and Sandine E. 1980. Microbiology of foods. W.H. Freeman & Co., San Francisco.
13. Blackmore, D.K. and J.C. Newhook. 1976. Effects of different slaughter methods on bleeding sheep. *The Vet. Record* 16: 312-316.
14. Carlsson F., P. Frykblom and C.J. Lagerkvist. 2007. Consumer willingness to pay for farm animal welfare: mobile abattoirs versus transportation to slaughter. *Eur. Rev. Agri. Econ.* 34(3): 321-344.
15. Clottey, J.A. 2011. Manual for the slaughter of small ruminants in developing countries. FAO, Animal Production and Health Division, Rome.
16. Dembo, J.A. 1894. The Jewish method of slaughter compared with other methods from the humanitarian, hygienic, and economic points of view. Kegan Paul, Trench, Trübner & Co., Ltd., London.
17. Farouk, M.M., H.M. Al-Mazeedi A.B. Sabow, A.E. Bekhit, K.D. Adeyemi, A.Q. Sazili and A. Ghani. 2014. Halal and Kosher slaughter methods and meat quality: A review. *Meat Sci.* 98(3): 505-519.
18. Frazier, W.C. and Westhoff, D.C. 1978. Food microbiology. McGraw-Hill Book Co., New York.
19. Fuseini, A., T.G. Knowles, P.J. Hadley and S.B. Wotton. 2016. Halal stunning and slaughter: Criteria for the assessment of dead animals. *Meat Science* 119:132-137.
20. Gracey, J.F. 1981. Thornton's meat hygiene. Balliere Tindall, London.
21. Grandin, T. 2013. Making slaughterhouses more humane for cattle, pigs, and sheep. *Ann. Rev. Ani. Biosci.* 1: 491-512.
22. Grandin, T. and J.M. Regenstein. 1994. Religious slaughter and animal welfare: A discussion for meat scientists. *Meat Focus International* 3:115-123.
23. Hasan, K. 2012. Halal hysteria. *New Statesman* 9:1-6.
24. Holy Bible.1976. Consolidated Book Publ., Chicago.
25. Hui, Y.H. 2012. Handbook of meat processing, 2<sup>nd</sup> ed, Taylor & Francis Group, CRC Press, Boca Raton,
26. Jay, J.M. 2012. Modern food microbiology. Springer Science & Business Media, Berlin,
27. Johnson, C.B., D.J. Mellor, P.H. Hemsworth and A.D. Fisher. 2015. A scientific comment on the welfare of domesticated ruminants slaughtered without stunning. *New Zealand Vet. J.* 1: 58-65.
28. Khan GM, 1982. Al-Dhabh - Slaying animals for food the Islamic way. Ta Ha Publishers Ltd., London.
29. Khan, M. Ramzan, 1926. The Review of Religions 25:37.
30. Koutsoumanis, K., A. Stamatiou, P. Skandamis, and G.J.E. Nychas. 2006. Development of a microbial model for the combined effect of temperature and pH on spoilage of ground meat, and validation of the model under dynamic temperature conditions. *App. Environ. Microbiol.* 72:124-134.
31. Lawrie, R. A., and D.A. Ledward. 2006. Lawrie's meat science. Ed. 7, Woodhead Publishing Press, Cambridge, UK
32. Maudoodi, S.A.A. 1976. The animals slaughtered by the people of the Book. Idara Tarjuman-ul-Quran, Ichhra, Lahore, Pakistan.
33. Mishkat Sharif. undated. Urdu Version, vol. 2. Printed & Published by Nur Muhammed, Araam Bagh, Karachi.
34. Mitchell, J.R. 1980. Guide to meat inspection in the tropics. Commonwealth Agri. Bureaux, Bucks, UK.
35. Pereira, R.E.P., M.R.F.B. Martins, A.A. Mendes, P.A.Z. Almeida, C.M. Komiyama, E.L.I. Milbradt, and B.C.da.S. Fernandes. 2013. Effects of pre-slaughter fasting on broiler welfare, meat quality, and intestinal integrity. *Revista Brasileira de Ciência Avícola* 15(2):119-122.

36. Regenstein, J.M. 2012. 'Hot topics: The politics of religious slaughter – How science can be misused'. Proc. of the Reciprocal Meat Conference 2012 Champagne, American Meat Science Association.
37. Riaz, M.N. and M.M. Chaudry. 2004. Halal food Production. CRC Press, Boca Raton, USA
38. Samiullah, M. 1982. The meat: Lawful and unlawful in Islam. Dawah & Irshad Wing, Islamic Res. Inst., Islamabad.
39. Sargentini, C., R. Tocci, M. Campostrini, E. Pippi and V. Iaconisi. 2016. At slaughtering and post-mortem characteristics on traditional market ewes and halal market ewes in Tuscany. J. Ani. Sci. Technol. 58:1-35.
40. Shahdan, I.A., J.M. Regenstein, A.S.M. Shahabuddin and M.T. Rahman. 2016. Developing control points for halal slaughtering of poultry. Poult. Sci. pew092. doi: 10.3382/ps/pew092
41. Usmani, T. 2004. Legal rulings on slaughtered animals. English translation by Moulana Abdullah Nana. Maktaba-e-Darul-Uloom, Karachi.
42. Velarde, A., P. Rodriguez, A. Dalmau, C. Fuentes, P. Llonch, K.V. Von Holleben and M.H. Anil. 2014. Religious slaughter: evaluation of current practices in selected countries. Meat Sci. 96(1): 278-287.