

## Short Communication

# Knowledge about veterinary anesthesia and the scope of anesthesiology for farmer

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### ABSTRACT

**Objective:** The scope of anesthesiology is extended immensely. The aim of this study was to know the farmer's understanding and scope of veterinary anesthesiology.

**Materials and method:** A total of 155 data were collected from different Upazilla Livestock Office and Veterinary Hospitals during the period from July to December 2017 through interview with a pretested questionnaire. Farmer's age, sex, educational status and occupation were considered during interview.

**Results:** We found that 27.74% farmer had the experienced of their animal's surgery whereas only 20% knew that anesthesia is given before surgery which is significantly ( $p < 0.05$ ) lower than that of disagree (48.39%). Simultaneously 78.71% farmer did not know who gives the anesthesia and 76.77% do not believe that a vet doctor can anesthetize animals for surgery. Interestingly 51.61 % farmers have not any idea where veterinary surgeons regularly work. It is important to note that although 64.51% farmer thought that anesthetist is needed for surgery, however, there 66.45% don't know the method of animal anaesthetization. In addition, 19.35% have little knowledge about anaesthesia. Finally we found 58.06% farmers ( $P < 0.05$ ) are interested to know about animal anesthesia if they get any opportunity to participate in a training program.

**Conclusion:** Our data suggest that farmer's understanding of animal anesthesia is very scanty. Therefore, planning and execution of basic awareness training program might capable to motivate farmers to bring their animal in a right place for the treatment.

### KEYWORDS

Anesthesia; Farmer; Knowledge; Veterinary

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## INTRODUCTION

Anesthesiology is one of the youngest branches of medical sciences (Sable and Waghchoure, 2016) that has always been misconstrued to be a “behind the screen” specialty and done immense development (Hariharan, 2009; Pandya et al., 2016). It has huge clinical and practical significance in performing advanced surgeries (Ribeiro and Mourao, 2015). Although this field has been grown-up by development of monitoring system, new anesthetic agents and techniques but one of the area of expertise involve in patient care (Mittal et al., 2005; Khara et al., 2013)

Bulti et al. (2016) reported that knowledge about anesthesia and the role of anesthetists are poor among the people in developing countries. A wide health care awareness especially in developed countries has been taken place (Haque et al., 2004; Prasad and Suresh, 2014; Bhandary et al., 2016). Advances in surgery and anesthesia are taking place simultaneously (Bhandary et al., 2016). The most complex surgeries become feasible and safe for the tremendous advances in anesthesia (Mittal et al., 2005). Over the past few decades, anesthesiology as specialty has seen a transition and made a huge impaction the way surgeries are being conducted and the type of care given to the patient. Clinical management of anesthetized patient plays a vital role for the increasing of success rate of recovery from surgical treatment. However, it is behind the light, the knowledge about this specialty and the exact role of anesthesiologists is limited in public (Cooper and Hutton, 1995). It is indeed unfortunate that lack of awareness regarding “anesthesiology” for patient care is a major concern for our country especially in livestock sector. It should be known that how much the patients who are going to get anesthesia and owners should know about the role of anesthesiologist and anesthesiology. The results should be analyzed and ways to improve their knowledge should be sought. (Naithani et al., 2007).

It is important especially in our countries to spread the awareness and knowledge about veterinary anesthesia and the scope of anesthesiology. Farmers are not properly conscious about their animals for surgery and anesthesia and to bring the animal at Veterinary Hospital for proper surgical treatment. A questionnaire is designed to assess awareness regarding need and scope and the results and findings of the study are analyzed. However, to the best of our knowledge, any study did not reveal with this survey aimed at studying awareness amongst the farmers in Bangladesh about the veterinary anesthesiology.

Therefore, the aim of this study is to assess the public knowledge about veterinary anesthesiology and its scope for farmer.

## MATERIALS AND METHODS

**Study area:** The data were collected from different Upazilla Livestock Office and Veterinary Hospitals of Patuakhali, Jhalokhati and Jessore district.

**Study period:** The data were collected during the period from July to December 2017.

**Collection of data:** The data were collected by using an interview schedule randomly from different farmers whose was came to the hospital for their animal treatment. During collection of data age, sex, educational status and occupation of each farmer were considered.

**Statistical analysis:** The collected data were input in the Microsoft Excel sheet for coding and analysis. The rate different variable was expressed as percentage (%). The analysis of variance was analyzed by using SPSS® statistical software (version 20.0). Differences were considered as significant at the level of 5% ( $P < 0.05$ ).

## RESULTS

A total of 155 data were collected from different upazillas of Patuakhali, Jhalokhati and Jessore district by using an interview schedule. The ranges of age of the farmer were 20-60 years old. Among the total farmer, the male and female participants were 91.08 and 7.64%, respectively. According to the educational status, illiterate, up to class 5, class 6 to 10, class 11 to Bachelor of Arts (BA) were 39.49, 24.84, 23.57, 10.82%, respectively. In case of occupation, farmer, business, laborer, job and others were

**Table 1:** Demographic profile of the farmers.

Subject characteristics		Value
Total number of observation in study		155
Range of age (Years)		20-60
Sex	Male	143 (91.08%)
	Female	12 (7.64%)
Education status	Illiterate	62 (39.49%)
	Up to class 5	39 (24.84%)
	Class 6 to 10	37 (23.57%)
Occupation	Class 11 to BA	17 (10.82%)
	Farmer	63 (40.13%)
	Business	32 (20.38%)
	Laborer	21 (13.38%)
	Job	20 (12.74%)
	Others	19 (12.1%)

**Table 2:** Farmers' understanding about veterinary anesthesiology.

Variables	% (N)
<i>Any surgical procedure conducted to your animals?</i>	
Yes	27.74 (43/155) <sup>a</sup>
No	72.26 (112/155) <sup>b</sup>
<i>Do you know anesthesia is given before doing animal surgery?</i>	
Yes	20 (31/155) <sup>a</sup>
No	48.39 (75/155) <sup>b</sup>
Don't know	31.61 (49/155) <sup>a</sup>
<i>Who administer anesthesia to the patient?</i>	
Veterinary Surgeon/ Govt. Vet/ Any registered Veterinarian	10.32 (16/155) <sup>a</sup>
A intern Student	5.81 (9/155) <sup>a</sup>
Compounder	5.16 (8/155) <sup>a</sup>
Don't know	78.71 (122/155) <sup>b</sup>
<i>Is the person who anesthetizes, a Vet doctor?</i>	
Yes	10.97 (17/155) <sup>a</sup>
No	76.77 (119/155) <sup>b</sup>
Don't know	12.26 (19/155) <sup>a</sup>
<i>Amongst the following places, where does the Surgeon/person regularly work?</i>	
Veterinary hospital	48.39 (75/155) <sup>a</sup>
Don't know	51.61 (80/155) <sup>a</sup>
<i>Do you think the anesthetist does any other work apart from working in OT?</i>	
Yes	21.93 (34/155) <sup>a</sup>
No	28.39 (44/155) <sup>a</sup>
Don't know	49.68 (77/155) <sup>b</sup>
<i>Do you think anesthetist is needed for the animal surgery?</i>	
Yes	64.51 (100/155) <sup>a</sup>
No	34.84 (54/155) <sup>b</sup>
Don't know	0.65 (1/155) <sup>c</sup>
<i>What do you think about the importance of the anesthetist for animal surgery?</i>	
Not at all important	18.07 (28/155) <sup>a</sup>
Slightly important	23.87 (37/155) <sup>a</sup>
Equally important as the surgeon	43.87 (68/155) <sup>b</sup>
More important than the surgeon.	14.19 (22/155) <sup>a</sup>
<i>How are the patients anesthetized?</i>	
By intravenous (IV) injection	0 (0/155)
By intramuscular (IM) injection	1.94 (3/155) <sup>a</sup>
By injection in the back/at the operation site	19.35 (30/155) <sup>b</sup>
By per oral tablets	0 (0/155)
By gas from mask	0 (0/155)
Hitting the head with a hammer	0 (0/155)
Any other way	12.26 (19/155) <sup>b</sup>
Don't know	66.45 (103/155) <sup>c</sup>
<i>Who monitors the patient during operation?</i>	
Surgeon	12.90 (20/155) <sup>a</sup>
A intern Student	8.39 (13/155) <sup>a</sup>
Assistant	7.10 (11/155) <sup>a</sup>
Others	5.16 (8/155) <sup>a</sup>
Nobody	47.74 (74/155) <sup>b</sup>
Don't know	18.71 (29/155) <sup>a</sup>
<i>Do you know the name of any anesthetic agents?</i>	
Yes	7.10 (11/155) <sup>a</sup>
No	92.90 (144/155) <sup>b</sup>
<i>Would you like to know more about the work of animal anesthesia if given a chance?</i>	
Yes	58.06 (90/155) <sup>a</sup>
No	41.94 (65/155) <sup>b</sup>

Different superscripts indicates significant co-relationship ( $P < 0.05$ ).

40.13, 20.38, 13.38, 12.74 and 12.1%, respectively (**Table 1**).

In this study, it was found that 27.74% farmer's had previous experience to do surgery to their animal which is significantly ( $P < 0.05$ ) lower than that of had not experience (72.26%). (**Table 2**). [Mittal et al., \(2005\)](#) had performed a similar study of human patient in which 24% patient were undergo any operation previously.

Under this survey, majority (48.39%) of the respondents were not think of using anesthesia is given before animal surgery. Only 20% farmer thought that the anesthesia is need before animal surgery (**Table 2**). According to the survey of [Mittal et al. \(2005\)](#) in human, majority of the respondents 67% were aware that some form of analgesia or anesthesia is given prior to or during the surgery while 20% were not aware of this prerequisite.

Under this survey, majorities (78.71%) of the subjects were lack of knowledge about the person whom gives/ administer anesthesia to the patients. A significant number of veterinary surgeon/ any registered veterinarian (10.32%) to be responsible for administering anesthesia. Only 5.81% intern students and 5.16% compounder were responsible for administering anesthesia (**Table 2**).

From this survey, it was found that majority of subjects told that 76.77% vet doctor did not give anesthesia and 12.26% respondents ( $P < 0.05$ ) have not any idea who administers an aesthesia. However, only 10.97% subjects thought that anesthesia was done by a vet doctor (**Table 2**).

In this survey, amongst the various places 48.39% respondents were able to identify veterinary hospital is the working area where does the surgeon regularly work. And of these 51.61% were not know where the surgeon regularly works (**Table 2**). According to the survey conducted by [Mittal et al. \(2005\)](#) in human, most of the respondents were able to identify correct anesthesiologist.

From this survey we found that, when asked question to the respondents, do you think the anesthetist does any other work apart from working in OT, 21.93% thought that an anesthetist does any other work apart from working in OT. 28.39% respondents answered that anesthetist does not have any other work apart from OT. However, majority (49.68%) respondents don't know about the any other work of anesthetist (**Table 2**). According to the survey of [Mittal et al., \(2005\)](#) in human, only 31% respondents thought that an anesthesiologist

does any other work apart from working in the operation theatre.

Under this survey, majority 64.51% respondents thought that anesthesia is needed for the animal surgery because it reduces pain during surgery. However, 34.84% respondents thought that anesthesia is not needed for the animal surgery. Of these, only 0.65% respondents do not have any idea about the necessary of anesthesia (**Table 2**).

Despite that fact that majority 43.87% respondents gave equal importance and 14.19% respondents gave more importance to the anesthesiologist as compared to the surgeon. A significant 23.87% respondent gave slight importance of the anesthesiologist for animal surgery. While only 18.07% respondents thought that anesthesia is not at all important for animal surgery (**Table 2**). According to the survey conducted by [Mittal et al. \(2005\)](#) in human, more than 50% respondents gave importance on anesthesiologist along with the surgeon.

On asking question, what are the various methods by which a patient was anesthetized; majority 66.45% of subjects were answered that they were not knew how the patient's anesthetized. Only 1.94% was anesthetized by intramuscular injection. In this case of patients anesthesia 19.35% patients were anesthetized by injection at the site of operation and 12.26% patients were anesthetized by any other way (**Table 2**). According to the survey of [Mittal et al. \(2005\)](#) in human, most of the people knew about commonly used methods of administering anesthesia namely intravenous injection (200/300), injection in the back (28/300) and gas from mask (18/300).

In this survey, on asking question who monitors the patients during operation, respondents answered that surgeon (12.90%), intern student (8.39%), assistant (7.10%) and others (5.16%) monitors the patients during operation. While, during operation 47.74% patients were not monitored by anybody and only 18.71% respondents did not know that who monitors the patients during operation (**Table 2**). From this survey, majority (92.90%) of the subjects were not know the name of any anesthetic agents of these, only (7.10%) subjects were able to know the name of anesthetic agents (**Table 2**).

When asked the people, would like more about the work of animal anesthesia if given a chance, majority (58.06%) of the respondents would agree to know more about the work of anesthesia while (41.94%) respondents would not like to know about the anesthesia (**Table 2**).

According to the survey of [Mittal et al. \(2005\)](#) in human if given a chance, an overwhelming majority of subjects (93%) were keen to learn more about the work of anesthesia.

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## CONCLUSION

The study was conducted to know the farmer understanding about the veterinary anesthesiology and its importance for farmer. We found that farmers had no experience (72.26%) of their animal surgery previously, whereas 48.39% respondents do not know that anesthesia is given prior to animal surgery. However, 43.87% farmer thought that anesthetist is equally important as the surgeon and 58.06% respondents would like to know more about animal anesthesia if got opportunity. The study duration and number of data is not sufficient for final conclusion accurately. Therefore, further study is required to know farmer understanding regarding veterinary anesthesiology.

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## CONFLICT OF INTEREST

There is no conflict of interest to declare.

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## AUTHORS' CONTRIBUTION

AKP designed the experiment, supervised the study, analyzed the data and revised the final draft of manuscript. MD directly involved to do the experiment, collection of data and reviewed the literature as well as written the draft of this manuscript.

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