

DIAGNOSIS OF DISEASES OF THE ABDOMINAL AREA OF DOGS BELONGING TO DIFFERENT BREEDS, OPERATIONS IN THE GASTROINTESTINAL DEPARTMENTS

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Abstract. *It is known the regular using of dog cynology service. Most inner non-communicative diseases of service dogs and dogs kept by the population are commonly digestive organ diseases. Such kind of diseases decrease the quality of service dogs' working capacity. In the article the information about the entry of foreign bodies into the body of dogs with nutrition, its effect on the physiology of the digestive system, not efficiency of traditional methods of treatment, the advantages of surgical methods, surgical techniques, the influence of suture materials on wound healing, scientific researches of international veterinary practice on the healing properties of surgical animals, using of international practice on treatment and prevention of digestive disease in Uzbekistan's veterinary field, treatment of digestive organs by surgery method also the surgery on dogs is given. At the end of article the expected results of use of stitches used in gastronomic surgery in the stomachs of dogs, also the conclusion on the importance of scientific researches in this field is given.*

Keywords: *diseases, sutures, gastrotomy, surgery, trauma, anesthesia, treatment, cynology.*

Introduction

In recent years, the role of the republican canine service in ensuring the inviolability of the state borders of our republic has no equal. No less important is the role of veterinary specialists in maintaining the health of animals serving in the canine service and eliminating various negative situations, in providing them with quality services. It is noteworthy that in recent years, not only in the state canine service, but also in the sphere of public services in our country, pets, especially dogs, have increasingly appeared [2]. Due to the increase in the number of pets and shortcomings in their maintenance and care, cases of foreign bodies entering the digestive system of dogs have become more frequent. The use of surgical methods to eliminate such conditions gives good results. Such operations belong to the category of operations performed on the abdominal cavity and are carried out on the stomach [5].

It is important to highlight the fact that several methods have been developed in veterinary surgery to prevent the development of purulent processes in wounds after surgical interventions. These include the use of high-quality suture materials that do not cause tissue displacement during wound healing. The success of abdominal surgery in dogs largely depends on the materials used to close the wounds (P.A. Tarasenko, 2005) [7]. It is necessary to know the properties of suture materials and comply with the requirements imposed on them.

Textbooks on veterinary surgery (Bolshakov O.P., Semenov G.M., 2001) [1] provide information on the main sutures used in various surgical practices: nodal, horn, ring, Plakhotin-Sadovsky, Schmidt, Lambert, Pirogov-Cherny. They are used in abdominal surgery.

It is worth acknowledging the reality that using of new synthetic surgical suture materials with post-rectogenic properties is a pressing issue in modern veterinary surgery. Currently, more than 50 domestic and foreign suture materials used by surgeons do not meet general requirements. According to scientists (Buyanov V.M. et al., 2000) [2], an increase in the number of sutures does not lead to a decrease in the number of complications. Therefore, in order to obtain short-term and long-term results, it is necessary to thoroughly master the methods of suturing and use methods that do not affect the physiological processes in the tissues.

Diagnostic studies of diseases of the digestive organs. Nowadays, diagnostic methods used in the diagnosis of animal diseases and the level of accuracy of these methods in the diagnostic process are considered important [3]. The importance of work on the diagnosis of animal diseases lies in the elimination of factors and conditions that can cause diseases in animals, expanding the possibilities of early detection of diseases in animals and early detection of general and local changes in the limbs (Fig. 1).

It is well established that research methods were carried out on an ultrasound machine, during which the abdominal cavity of the dog was examined using a sensor adapted for external examination of internal organs, at a frequency of 4.5 microhertz. During the study, the skin folds around the abdominal cavity were shortened, antiseptic treatment was performed, and the internal organs were examined using a special gel.

The object and method of the study. The experiments were conducted at the veterinary clinic of the Department of General Animal Science of the Zooengineering Faculty of Tashkent State University. Dogs with gastric ulcers or those who had swallowed a foreign body from the kennel of the canine service of the Tashkent Region Department of Internal Affairs, as well as dogs kept in households, were selected as the material. During the experiments, a gastrotomy operation was performed on 12 dogs of various breeds. The dogs in the experiment were divided into 2 groups of 6 individuals. The stomach wounds in dogs of the first group were sutured with a two-layer Schmiden and Lambert suture. Synthetic lavsan threads were used as suture material. The Schmiden suture is continuous and was used to suture the first layer of wounds in the stomach and colon, and the second layer - with the Lambert suture (Table 1).



Figure 1. Ultrasound diagnostics of a dog with a suspected foreign body

The wound in dogs of the second group was sutured with a single-row Lambert suture. Silk suture material was used as a suture material.

Research results. Gastrotomy is one of the most frequently used operations on the abdominal organs in animals with a single-chamber stomach in veterinary practice. The main purpose of the operation is to diagnose stomach diseases, remove foreign bodies, ulcers and tumors that have entered the stomach.

The animal is fixed on the operating table in a supine position. Anesthesia is performed using neuroleptanalgesia. For this, a 2.5% solution of aminazine and a 2% solution of ketamine are administered intravenously or intramuscularly. The incision line is bandaged and local anesthesia is administered by infiltration (soaking) with a 0.5% solution of novocaine. Laparotomy is performed to access the abdominal cavity. For this purpose, an incision was made along the white line in the anterior part of the navel using the medial method.

Table 1

Breeds of dogs in the experimental group, materials and methods of dressing

№	Dog breeds	Number of dogs included in the experimental group	Experimental group I	Experimental group II
1	German Shepherd	2	++	
2	Super Asian hunter	2		++
3	Belgian hunter	2	++	
4	Cocker Spaniel	2	++	
5	Eastern European	2		++
6	Domestic dog	2		++
Total		12	6	6

Research consistently demonstrates that the skin and underlying layers are dissected down to the peritoneum. Care must be taken when dissecting the peritoneum; to do this, the abdominal wall is lifted with surgical forceps and a 1-2 cm incision is made with a scalpel. Two fingers or a small probe are inserted into the resulting opening and the incision is enlarged along the length of the incision [5]. The length of the wound may be 10 centimeters or more, depending on the size of the animal. After opening access to the abdominal cavity, the stomach is aspirated. Then, the site or foreign body with a gastric ulcer is found and the stomach is removed to the outside on a napkin, previously covered with a napkin on the abdominal wall.

The foreign body is aspirated into a place with low vascularization of the stomach, with the exception of the wound. Intestinal clamps are placed under the foreign body or wound to prevent bleeding from the stomach wall. The stomach wall is dissected with a scalpel or scissors, and if the wound is larger than the foreign body, it is cut with a sharp knife along the border of healthy tissue. After removal of the foreign body and the wound, the wound surface is cleaned with a swab with a 0.9% sodium chloride solution, in particular, fluid and blood clots are removed from the stomach. Then the stomach wound is sutured [4] (Fig. 2).

It is generally accepted within the field that wounds of the dogs of the first group were sutured with a continuous suture according to Schmidt and Lambert. Synthetic lavsan thread was used as a

suture material. For dogs of the second group, silk thread No. 2 of Uzbek manufacture was used. The wounds on the stomachs of dogs were sutured with a single-layer serous-muscular suture according to Lambert. 4 hours after the operation, the dogs were given warm water and rice broth. For 7 days, the general condition, behavior, appetite and stool of the dogs were observed. In parallel, symptomatic treatment was carried out for 7 days, for which 2 g of 4% gentamicin, 2 g of cerucal, 2 g of ascorbic acid subcutaneously and 1 teaspoon of phosphalugel were administered twice a day 15-20 minutes before feeding.

After 5 days, laparotomy was performed on one dog from each group to examine the wound condition; it was found that the dog of the first group had significant redness and swelling around the wound. The dog of the second group had reddened tissues around the wound, and the swelling was significant. 10 days after the operation, diagnostic laparotomy was performed on all dogs, and healing of the gastric wounds was confirmed. The wounds in the dogs of the first group were smooth; there was no pain due to the scar, and the general condition of the dogs was satisfactory. The wounds in the dogs of the second group had scars around the wounds, but they were relatively rough and edematous in some places. It was concluded that this condition was the result of wound closure using the single-layer Lambert method using silk thread.

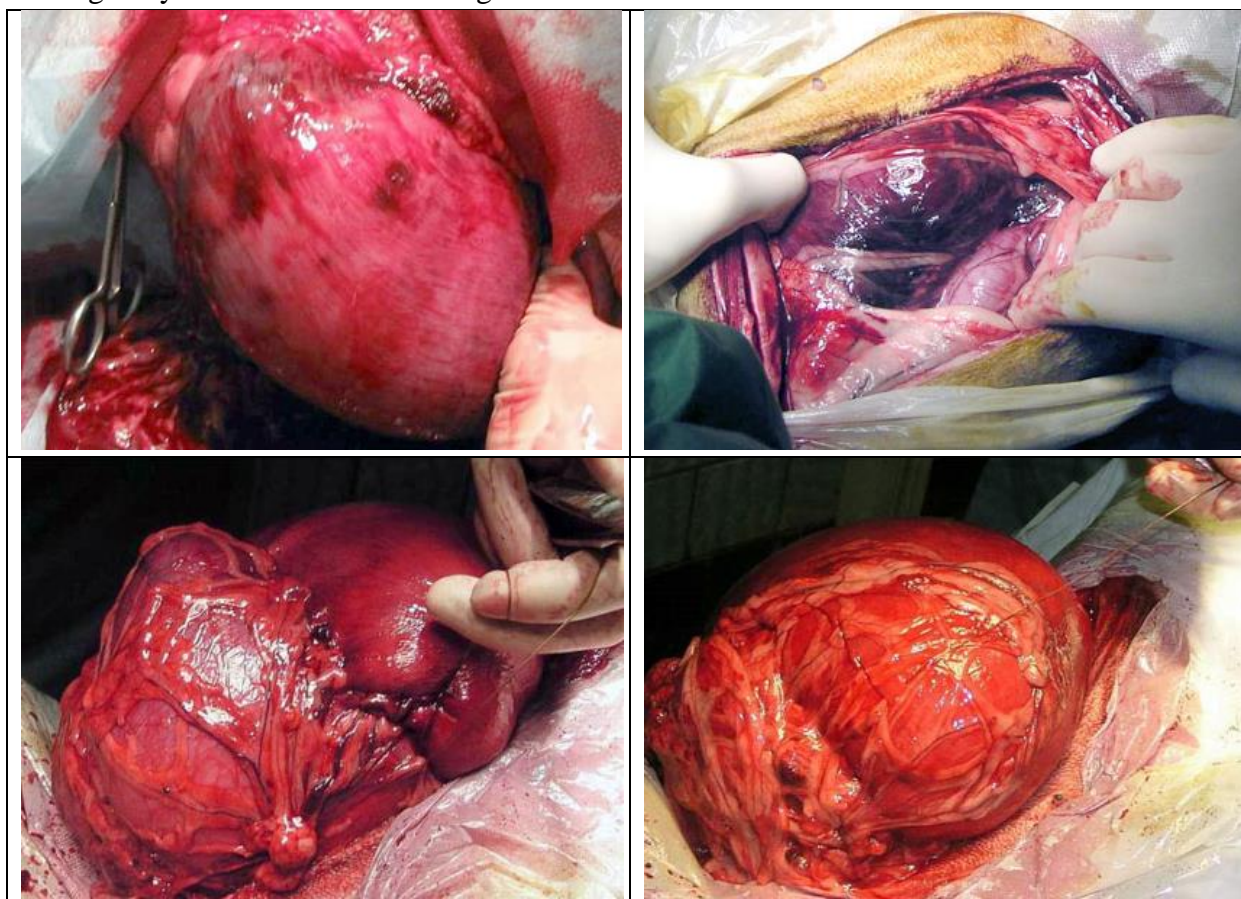


Figure 2. Technique of suturing during gastric incision

Conclusion. In the practice of gastrotomy in dogs, it is advisable to use Schmidt and Lambert sutures to close wounds.

Synthetic lavsan and silk threads are recommended as suture materials in surgical practice. When comparing the methods of suturing and suture materials, it was found that when using two-layer Schmidt, Lambert and synthetic lavsan material sutures, the wound scar is smooth, strong and has low adhesion.

From the analysis above, it is evident that it is recommended to use natural textile threads for the fusion of damaged tissues of the stomach wall and their importance in closing wounds in comparison with other types of polymer, synthetic, PGA, silk threads.

REFERENCES

1. Kashin A.S. Suturing postoperative wounds of the abdominal wall in animals, Veterinary Journal No. 4, 2001;
2. Narziev B.D. Comparative evaluation of suture material and materials used in gastroenterological operations in dogs, Veterinary Science Magazine No. 2, 2019;
3. Guy Saint-Jean, Adrian Steiner, David Weaver, "Cattle Surgery and Lameness", USA, 2005
4. Medvedeva L.V. On the issue of using a single-row intestinal suture. Novosibirsk, 2004;
5. H.K. Rustamov, Ya.A. Akhbutaev, B.D. Narziev "Operative Surgery" Samarkand-1997
6. Troyanovskaya L.P. Experience in using a new suture material for veterinary medicine. Conference Abstracts of the International, 1995.
7. K.I. Shakalov, I.A. Kalashnik, G.S. Mastyko, I.E. Povazhenko, B.A. Bashkirov, B.S. Semenova Private veterinary clinic "Lelengradsky Kolos" 2005