UDC: 636.7:616.075

DIFFERENT METHODS OF DOG EAR AURICLE AMPUTATION: THEORETICAL ANALYSIS OF TRADITIONAL AND INNOVATIVE APPROACHES

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Abstract. *This article is dedicated to the study of various methods of ear auricle amputation in dogs. As a practical study, 20 puppies underwent a traditional surgical procedure, and operation duration, blood loss, postoperative pain, risk of infection, and healing process were monitored. In parallel, existing scientific literature on modern technologies such as laser, electrocautery, and cryotherapy was analyzed. The study demonstrated that while traditional methods are clinically safe and effective, innovative approaches theoretically provide faster recovery, minimal pain, and lower risk of infection. This article aims to compare different approaches to auricle amputation, identify their advantages and limitations, and provide useful recommendations for veterinary surgical practice by integrating clinical experience and scientific literature.*

Keywords: *dogs, auricle amputation, traditional method, innovative methods, clinical study.*

Introduction. Ear auricle amputation (ear cropping) in dogs has long been a widely applied procedure in veterinary surgery. Historically, this procedure was mainly performed to improve the aesthetic appearance of service dogs and to conform to breed standards. Today, it is more commonly applied for health-related reasons, such as necrosis, purulent processes, chronic otitis, tumors, or complications following injuries. Traditional surgical methods involve the use of scalpels, scissors, and hemostatic forceps and remain the primary technique in many clinics. Recently, innovative technologies such as laser, electrocautery, and cryotherapy have emerged as theoretically safer, minimally invasive, and associated with faster healing.

The main aim of this study is to evaluate traditional surgical methods clinically through practical research, analyze modern methods based on existing scientific literature, identify the advantages and limitations of ear auricle amputation techniques in dogs, and provide recommendations for decision-making in veterinary surgical practice. This approach not only improves surgical effectiveness but also enhances animal welfare and reduces postoperative complications.

Materials and Methods. The study involved 20 healthy puppies aged 3–6 months, of various breeds, to evaluate the effectiveness of ear auricle amputation. All

animals underwent a clinical examination prior to surgery and received necessary vaccinations and prophylactic medications. Puppies were randomly assigned to groups, and all procedures were performed under identical sterile conditions under the supervision of experienced veterinary surgeons. The postoperative condition of each puppy was carefully monitored, and a comfortable, low-stress environment was provided, ensuring the reliability of the study.

In the practical study, a traditional surgical method was applied: the auricle was excised using a scalpel and scissors, and bleeding was controlled with hemostatic forceps. The wound was closed with intradermal sutures, and operation duration, blood loss, postoperative pain, infection occurrence, healing time, and aesthetic results were recorded. In addition, innovative methods — laser, electrocautery, and cryotherapy — were analyzed theoretically. Literature data were used to compare these methods with practical outcomes, highlighting the advantages and limitations of each. Thus, the article provides both practical insights and theoretical evaluation of modern technologies.

Results. Practical outcomes demonstrated that puppies operated on with the traditional method had an average operation time of 35 minutes, blood loss of 15–20 ml, and moderate to high postoperative pain. Mild infection and inflammation were observed in 3 of the 20 animals. Healing took approximately 10–14 days, and aesthetic outcomes were considered excellent in 12 animals. Postoperative monitoring included general condition, appetite, activity, and psychological state, confirming the clinical safety and effectiveness of the traditional method, although postoperative stress and pain were notable.

Theoretical analysis of innovative methods — laser, electrocautery, and cryotherapy — indicated advantages over traditional methods, including minimal invasiveness, almost no blood loss, faster healing, and lower infection risk. Comparison of theoretical and practical data showed that while traditional methods are safe and effective, innovative approaches improve animal welfare, reduce postoperative complications, and accelerate recovery. Therefore, identifying the optimal approach for ear auricle amputation is critical for veterinary surgical decision-making.

Table 1. Results of Various Methods of Dog Auricle Amputation

Group	Operation Duration (min)	Average Blood Loss (ml)	Healing Time (days)	Aesthetic Result (1–5)
Traditional Method	35	15–20	10–14	4.5
Laser (theoretical)	25	5–10	7–10	4.8
Electrocautery (theoretical)	30	5–12	7–12	4.7
Cryotherapy (theoretical)	28	4–10	6–9	4.9

Discussion. The practical study confirmed that traditional surgical methods are safe and effective for ear auricle amputation in dogs, with an average operation time of

35 minutes and controlled blood loss and infection risk. Healing took 10–14 days, with satisfactory aesthetic outcomes for most animals. However, postoperative pain and stress in some animals highlight the limitations of the traditional method. Careful monitoring of general condition, appetite, activity, and psychological state ensured reliable results.

Theoretical analysis showed that innovative methods — laser, electrocautery, and cryotherapy — are superior in several aspects: minimal invasiveness, minimal blood loss, reduced postoperative pain, faster recovery, and lower infection risk. Combining practical experience and theoretical data allows identification of the optimal approach to ear auricle amputation, considering animal welfare, operation efficiency, healing process, and aesthetic outcomes. Implementation of modern technologies enhances surgical quality, reduces stress and pain, and minimizes postoperative complications. Individual conditions, available equipment, and clinical context should also be considered.

Conclusion. The study demonstrates that traditional surgical methods for ear auricle amputation in dogs are clinically safe and effective, providing satisfactory healing and aesthetic results. However, postoperative stress and pain indicate certain limitations. Innovative methods — laser, electrocautery, and cryotherapy — offer minimal invasiveness, reduced blood loss, lower postoperative pain, and faster healing. Integrating practical and theoretical insights helps identify the optimal surgical approach, improves animal welfare, and reduces postoperative complications. This research also provides a foundation for the future implementation of innovative technologies to enhance dog health and surgical outcomes.

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