

COMPARATIVE EVALUATION OF CONVENTIONAL SUTURING TECHNIQUE V/S SKIN STAPLES FOR THE TREATMENT OF AURAL HAEMATOMA IN DOGS

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ABSTRACT : Aural haematoma is an accumulation of blood in between the skin and cartilage of the ear. It usually appears as fluid-filled swelling on the concave surface of Pinna. The present study was undertaken to evaluate the incidence of aural haematoma in dogs and to compare stapling and polypropylene sutures for treatment of aural hematoma in dogs. Among the 36 dogs presented for treatment of aural haematomas to the Veterinary Hospital, University of Agricultural Sciences, Dharwad during 2019-2020, the high incidence was noticed in males, in non-descript dogs and between 6-9 years of age. Here, 12 dogs were then randomly divided into two groups *i.e.*, Group - I (Suturing with Polypropylene, n=6) and Group - II (Stapling, n=06) according to the surgical treatment they received. The mean total time required for the application of staples in Group II (6.48 ± 1.52 min) was very less when compared to suturing in Group I (21.67 ± 1.91 min). The mean healing time required for complete healing of the surgical wound was very less in Group II - stapling technique (11.68 ± 1.17 days) as against suturing in Group I (18.92 ± 1.89 days). The lower inflammatory response (oedema/inflammation, oozing/discharge, redness, pain) was seen in Group II than Group I. Results for cosmetics were found to be better in Group II as compared to Group I. It was concluded that surgical skin staples were superior to polypropylene sutures for the treatment of aural haematoma in dogs.

Key words : Aural haematoma, canine, stapling, suturing, polypropylene.

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INTRODUCTION

Aural haematoma is an accumulation of blood in between the skin and cartilage of the ear. It usually appears as fluid-filled swelling on the concave surface of the ear pinna. In most cases, aural haematoma occurs due to constant shaking and rubbing of the ear due to otitis, ectoparasitism, otorrhoea, foreign bodies, hypersensitivity and allergic dermatitis (Ahiwar *et al*, 2007).

Among various otic disorders, aural haematoma is one of the most common problems encountered in dogs. This condition is usually unilateral, but it can be bilateral. The swelling may involve the entire ear flap or it may only involve one area (Ashokkumar Reddy and Anilkumar, 2020). Hematomas should be drained as soon as possible. If they are left untreated, fibrin formation can occur,

leading to fibrosis, contraction and thickening, potentially leaving the ear with a deformed cauliflower-like appearance (Fossum *et al*, 2007).

Several methods have been reported in the literature for the management of aural hematoma. Conservative treatment varies from simple needle aspiration of haematoma (Wilson, 1983) to drainage and glucocorticoid installation (Kuwahara, 1986), Penrose tube (Joyce, 1994), Close suction drainage (Swaim and Bradley, 1996) and teat cannula placement (Dewangan *et al*, 2017). Most conservative treatments relieve acute pain, but recurrence is common. Surgical treatments include incision combined with interrupted horizontal mattress sutures passing through and through the skin of pinna for the obliteration of dead space (Kagan, 1983), incisional drainage followed by button suture (Joyce, 2000) and punch biopsy and