

## Efficacy of Sodium Chloride as embalming preparation in preserving canine Cadavers

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**Abstract** Evaluation of sodium chloride was studied for the potential preservative embalming response in canine cadavers. Total of 15 canine cadavers were randomly assigned for experimental trial with two embalming-tested solutions including 18% sodium chloride with 0.1% formalin (group 1) and 1% formalin (group 2), respectively, to compare with 10% formalin without sodium chloride (group 3). The results illustrated that the measurement of lightness color ( $L^*$  value) of all muscle treated with group 3 higher than group 1 ( $P < 0.05$ ). Group 1 showed the lowest tensile strength in the rectus femoris ( $P < 0.01$ ) and the long-head of triceps brachii ( $P < 0.05$ ). The satisfaction degree of four parameter including color, odor, texture and flexibility were difference, whereas, satisfaction degree of both texture and flexibility in the group 3 were lowest ( $P < 0.05$ ). These results suggest that the embalming solution prepared from sodium chloride has potential to maintain the natural carcass including color and texture, and also promote satisfaction of cadaveric user. However, the non-toxic sodium chloride as alternative embalming solution for preventing cadaveric putrefaction need to be further investigated in various concentrations.

**Keywords** : sodium chloride, embalming solution, canine cadaver

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