



KEY WORDS

- ✓ Aloe vera
- ✓ Adhesion
- ✓ Cell adhesion molecules
- ✓ Cecotomy
- ✓ Rat

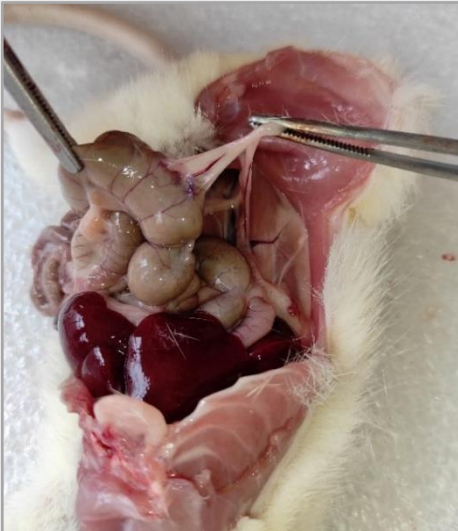
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COMPARISON OF THE EFFECTS OF ALOE VERA SOLUTIONS ADMINISTERED INTRA-ABDOMINALLY AT DIFFERENT CONCENTRATIONS ON POSTOPERATIVE ADHESION DEVELOPMENT IN RATS

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GRADUATION DATE: 26.08.2025

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THESIS ABSTRACT

In this experimental study, in which a peritoneal adhesion model was created in rats, it was aimed to evaluate the macroscopic and histopathological effects of Aloe vera solutions prepared at different concentrations and applied intraabdominally on preventing the development of postoperative intra-abdominal adhesions, and also to investigate their impact on the release of E-selectin, ICAM-1 and VCAM-1, which are cell adhesion molecules acting at the molecular level, and C-reactive protein, which is an inflammation marker. It was concluded that fresh solutions prepared from Aloe vera suppressed inflammation in the abdomen and reduced adhesion development. It was found that E-selectin levels were lower when using a concentrated Aloe vera solution.

APPLICATION AREAS OF THE THESIS RESULTS

It was concluded that fresh solutions prepared from aloe vera suppress inflammation in the abdomen and reduce adhesion development. Preliminary data on cell adhesion molecule levels were obtained, contributing to the literature by providing diagnostic use.

ACADEMIC ACTIVITIES

1. Sert ST, 2023. Comparison of the Effects of Intraabdominal Aloe Vera Solutions Applied at Different Concentrations on Postoperative Adhesion Development in Rats. Oral presentation at the 5th Veterinary Medicine Emergency Intensive Care TuVECCA Congress Antalya. <https://tuveccakongreleri.org/2023/>
2. Can H, Cangul IT, Guler S, Yavas O, Sert ST, Unlu E, Kırım E, Akkoc A, Topal A and Satar NY 2025. Clinical, histopathological, and immunohistochemical investigations of the effects of aloe vera (Aloe barbadensis miller) on open wound healing in rats. Pak Vet J. <http://dx.doi.org/10.29261/pakvetj/2025.210>
3. Ceçen Ayalp G, Altuğ Şen İ, Gül Satar NY, Tokoğlu Sert S.(2020) Ultrasound follow-up of adhesions after one-step laparoscopic abomasopexy for correction of left displaced abomasum in cattle. Journal of Research in Veterinary Medicine, 39 (1) 15-20.