

ABSTRAK

PENGARUH JUS LIDAH BUAYA (*ALOE VERA*) KONSENTRASI 7,5%, 10%, DAN 12,5% SEBAGAI ANTIVIRAL VIRUS *FOWL POX* DENGAN UJI *IN OVO*

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Cacar Unggas (*Fowl pox*) merupakan penyakit pada kelompok unggas yang disebabkan oleh virus *Fowl pox*, genus *avipoxviridae*. Belum ada pengobatan spesifik yang dapat diberikan. Namun, disarankan dilakukan biosekuriti dan vaksinasi. Kekurangan vaksinasi yaitu, tidak dapat menginduksi imunitas terhadap virus jika tidak diadministrasikan dengan baik dan tidak dicampur dengan vaksin strain lain yang memerlukan biaya lebih dan proses yang tepat. Alternatif untuk menutupi kekurangan tersebut menggunakan lidah buaya yang memiliki senyawa antiviral terhadap virus *Fowl pox*. Tujuan penelitian ini untuk mengetahui pengaruh jus lidah buaya konsentrasi 7,5%, 10%, dan 12,5% dalam menghambat virus *Fowl pox* di membran korioalantois pada uji *in ovo*. Telur Ayam Berembrio (TAB) berumur 11 hari diinokulasikan campuran vaksin *Fowl pox*, antibiotik, dan antifungal pada membran korioalantois. Menggunakan 12 telur sebagai media inokulasi yang dibagi menjadi 4 kelompok perlakuan yaitu, kelompok diberi perlakuan jus lidah buaya 7,5%, kelompok diberi perlakuan jus lidah buaya 10%, kelompok diberi perlakuan jus lidah buaya 12,5%, dan kelompok kontrol vaksin tanpa diberikan jus lidah buaya. TAB diinkubasi dan dipanen pada umur hari ke-17 untuk diamati lesi yang timbul pada permukaan membran korioalantois. Pengamatan dilakukan secara makroskopis penghitungan jumlah lesi pock yang datanya diolah dengan histogram dan SPSS, serta mikroskopis dengan pengamatan badan inklusi dan penebalan (hiperplasia dan hipertrofi) jaringan membran korioalantois. Didapatkan hasil bahwa pemberian jus lidah buaya 12,5% menimbulkan lesi pock dan penebalan jaringan epitel yang lebih sedikit dibandingkan perlakuan dengan jus lidah buaya 7,5% dan 10%. Kesimpulan dari hasil penelitian, pemberian jus lidah buaya 12,5% berpotensi menghambat perkembangan virus *Fowl pox*.

Kata kunci: *Fowl pox*, jus lidah buaya, lesi pock, membran korioalantois (CAM)

ABSTRACT

THE EFFECT OF 7,5%, 10%, AND 12.5% CONCENTRATION OF ALOE VERA JUICE AS FOWL POX VIRUS ANTIVIRAL BY IN OVO TEST

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Fowl pox is a disease of poultry caused by the *Fowl pox* virus, genus *avipoxviridae*. There is no specific treatment that can be given. However, biosecurity and vaccination are recommended. The drawback of vaccination is that it cannot induce immunity to the virus if it is not administered properly and not mixed with other strains of vaccines, which requires more money and proper processing. An alternative to cover these shortcomings is using aloe vera which has antiviral compounds against the *Fowl pox* virus. The purpose of this study was to determine the effect of aloe vera juice concentrations of 7.5%, 10%, and 12.5% in inhibiting the *Fowl pox* virus in the chorioalantois membrane in the in ovo test. 11-day-old embryonated chicken eggs (TAB) were inoculated with a mixture of *Fowl pox* vaccine, antibiotics, and antifungals on the chorioalantois membrane. Using 12 eggs as inoculation media which were divided into 4 treatment groups, namely, the group treated with 7.5% aloe vera juice, the group treated with 10% aloe vera juice, the group treated with 12.5% aloe vera juice, and the vaccine control group without aloe vera juice. TABs were incubated and harvested on day 17 to observe the lesions that appeared on the surface of the chorioalantois membrane. Observations were made macroscopically counting the number of pock lesions whose data were processed with histogram and SPSS, and microscopically by observing inclusion bodies and thickening (hyperplasia and hypertrophy) of chorioalantois membrane tissue. It was found that the administration of 12.5% aloe vera juice caused fewer pock lesions and thickening of epithelial tissue compared to treatments with 7.5% and 10% aloe vera juice. In conclusion from the results of the study, the administration of 12.5% aloe vera juice has the potential to inhibit the development of the *Fowl pox* virus.

Key word: Fowl pox, aloe vera juice, pock lesions, Chorioallantoic membrane (CAM)