

INTISARI

FANANY, A.N, 2013, PENGARUH SUSU SAPI DAN KAMBING PROBIOTIK TERHADAP PENURUNAN KADAR MALONDIALDEHID (MDA) PADA HATI MENCIT YANG TERPAPAR FORMALIN, SKRIPSI, FAKULTAS FARMASI, UNIVERSITAS SETIA BUDI, SURAKARTA.

Formalin dikonsumsi berlebih atau berkepanjangan menyebabkan stres oksidatif dan kematian sel. Susu sapi dan kambing probiotik mengandung bakteri asam laktat (BAL) yang bisa meningkatkan antioksidan SOD dan senyawa antimikrob. MDA (malondialdehid) adalah indikator kerusakan oksidatif pada membran sel. Penelitian bertujuan mengetahui pengaruh pemberian susu sapi dan kambing probiotik terhadap penurunan kadar MDA pada hati mencit yang terpapar formalin dosis 50 ppm dan jenis susu probiotik yang efektif.

Penelitian ini menggunakan kontrol normal dan kontrol formalin, serta kelompok terapi terdiri atas susu sapi probiotik 10^8 CFU/ml, susu kambing probiotik 10^8 CFU/ml, susu sapi, dan susu kambing. Kelompok terapi masing-masing diberi formalin secara oral kemudian diterapi susu. Penelitian ini menggunakan 5 ekor mencit tiap kelompok selama 14 hari. Kadar MDA (nmol/ g) diukur dengan Spektrofotometer UV-Vis panjang gelombang 532 nm. Hasil dianalisa dengan Anava dilanjutkan *Post Hoc test* dengan taraf kepercayaan 95%.

Hasil penelitian menunjukkan semua kelompok terapi berpengaruh terhadap penurunan kadar MDA. Kadar rata-rata MDA tiap kelompok 0,97; 5,36; 2,26; 1,36; 2,93 dan 1,87. Susu kambing probiotik lebih efektif dibanding kelompok terapi lainnya. Adanya protein dan BAL dalam susu berefek pada pencegahan atau penghambatan kerusakan sel hati.

Kata kunci : susu sapi, susu kambing probiotik, malondialdehid, hati.

ABSTRACT

FANANY, A.N, 2013, TEST THE EFFECTIVENESS COW'S AND GOAT'S PROBIOTIC MILK TO DECREASE LEVELS OF MALONDIALDEHYDE (MDA) ON THE LIVER OF MICE EXPOSED TO FORMALIN, UNDERGRADUATE THESIS, FACULTY OF PHARMACY, SETIA BUDI UNIVERSITY, SURAKARTA.

Excessive or long-term consumption of formalin may cause oxidative stress and cell death. Cow's and goat's probiotic milk are containing lactic acid bacterium (BAL), which could increase the antioxidants SOD and antimicrobial compounds. MDA (malondialdehyde) is an indicator of oxidative damage to cell membranes. This study aims to determine the effect of cow's and goat's probiotic milk to decrease MDA levels in the livers of mice exposed to 50 ppm formalin dose and the type of probiotic milk effective .

This study uses the normal control and the formalin control, as well as group therapy cow's probiotic milk consisting of 10^8 CFU/ ml, goat's probiotic milk 10^8 CFU/ml , cow's milk, and goat's milk. Each treatment group were given orally formalin and then treated milk. This study used 5 mice per group for 14 days. MDA levels (nmol/g) was measured with a spectrophotometer UV-Vis wavelength of 532 nm. Results were analyzed by ANOVA followed by post hoc test level of 95 % .

Results show that all test groups affect the decreasing of MDA levels (nmol/g). Average levels of MDA per group 0.97; 5.36; 2.26; 1.36; 2.93 and 1.87. Goat's probiotic milk is more effective than other treatment groups. The presence of protein and BAL in milk can affect the damage prevention or inhibition of mice liver cell that are exposed to excessive doses of formalin.

Key words: Cow's milk, goat's milk probiotic, malondialdehyde, liver.