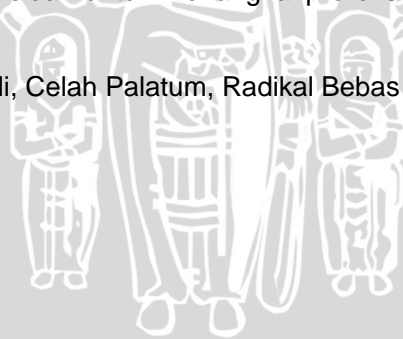


## ABSTRAK

Dova, Syarifah Almira. 2017. **Pengaruh Pemberian Ekstrak Brokoli (*Brassica oleracea. L*) Terhadap Malformasi Berupa Celah Palatum Pada Janin Tikus Putih Strain Wistar (*Rattus norvegicus*) yang Disebabkan Oleh Kafein**. Tugas Akhir, Program Studi S1 Kebidanan, Fakultas Kedokteran Universitas Brawijaya. Pembimbing: (1) Dr. dr. Setyawati Soeharto, M.Kes. (2) Dr. dr. Siti Candra Windu Baktiyani, Sp.OG(K).

Kafein bersifat teratogen tidak spesifik yang mendukung produksi radikal bebas, kemudian memicu terjadinya stres oksidatif dan telah terbukti dapat menyebabkan malformasi celah palatum. Peningkatan produksi radikal bebas dapat dicegah oleh adanya antioksidan, dan tanaman brokoli telah terbukti memiliki antioksidan berupa flavonoid. Penelitian ini menggunakan 25 tikus betina *Rattus norvegicus* yang hamil dan dibagi dalam 5 kelompok, perlakuan dilakukan pada hari ke 9-11 kehamilan. Kontrol negatif tidak mendapat kafein dan ekstrak brokoli, kontrol positif (kafein 80 mg/kgBB), perlakuan I (kafein 80 mg/kgBB + ekstrak brokoli 200 mg/kgBB), perlakuan II (kafein 80 mg/kgBB + 400 mg/kgBB), perlakuan III (kafein 80 mg/kgBB + 800 mg/kgBB), kafein diberikan secara intraperitoneal sementara ekstrak brokoli per oral. Dilakukan pembedahan pada hari ke 18 kehamilan dan janin tikus akan diwarnai dengan metode *Alizarin red*. Kejadian malformasi celah palatum pada kontrol positif sebanyak 2.94%, perlakuan I tidak terdapat celah palatum, perlakuan II sebanyak 12.5%, dan perlakuan III sebanyak 51.4%. Semakin tinggi dosis ekstrak brokoli yang pemberiannya bersamaan dengan kafein, maka semakin banyak pula malformasi celah palatum yang terjadi. Namun pada kelompok perlakuan I, diduga terdapat efek brokoli sebagai antioksidan untuk menangkal pro oksidan yang disebabkan oleh kafein.

Kata Kunci : Kafein, Brokoli, Celah Palatum, Radikal Bebas



**ABSTRACT**

Dova, Syarifah Almira. 2017. **The Effect of Broccoli Extract (*Brassica oleracea L.*) to Against Cleft Palate Malformation in Fetus of Strain Wistar (*Rattus norvegicus*) Caused by Caffeine.** Final Assignment, Bachelor of Midwifery Program, Faculty of Medicine, Brawijaya University. Supervisors: (1) Dr. dr. Setyawati Soeharto, M.Kes. (2) Dr. dr. Siti Candra Windu Baktiyani, SpOG(K).

Caffeine is not specific teratogen that supports the production of free radicals, then trigger oxidative stress, and has been proven to cause cleft palate malformation. Increased production of free radicals can be prevented by the presence of antioxidants and broccoli has been shown to have antioxidants such as flavonoids. This study used 25 pregnant rats *Rattus norvegicus* and divided into five groups which given the treatment on days 9-11 of pregnancy. Negative controls were not given the caffeine and broccoli extracts, a positive control (caffeine 80 mg/kgBB), group I (caffeine 80 mg/kgBB + broccoli extract 200 mg/kgBB), group II (caffeine 80 mg/kgBB + 400 mg/kgBB), group III (caffeine 80 mg/kgBB + 800 mg/kgBB), caffeine was given intraperitoneally while the broccoli extract was given orally. Surgery was performed on day 18 of pregnancy and rats fetal will be colored with Alizarin Red method. The incidence of cleft palate malformation in the positive control as much as 2.94%, there is no cleft palate in group I, in group II as much as 12.5%, and in group III as much as 51.4%. The higher dose of broccoli extract plus caffeine that were given, the more cleft palate malformation occurs. But group I, allegedly contained broccoli effects as antioxidants to counteract pro-oxidant caused by caffeine.

Keywords : Caffeine, Broccoli, Cleft Palate, Free Radical

