

ABSTRAK

Kristyawan, Firdaus. 2016. **Pengaruh Pemberian Ekstrak Jamur Tiram terhadap Peningkatan Ketebalan Epitel pada Luka Tikus Putih Galur Wistar Model Hiperglikemi.** Tugas Akhir, Program Studi Ilmu Keperawatan Fakultas Kedokteran Universitas Brawijaya. Pembimbing: (1) Dr. dr. Retty Ratnawati, M.Sc. (2) Ns. Heri Kristianto, S.Kep., M.Kep., Sp.Kep.MB.

Diabetes Mellitus merupakan gangguan metabolisme yang ditandai hiperglikemi karena gangguan insulin. Kondisi ini memicu terjadinya gangguan penyembuhan luka salah satunya epitelisasi akibat penurunan faktor pertumbuhan. Penelitian ini bertujuan untuk mengetahui pengaruh ekstrak jamur tiram (*Pleurotus Ostreatus*) yaitu beta glukon terhadap ketebalan epitel dalam penyembuhan luka tikus model hiperglikemi. Dua puluh empat tikus dengan berat badan 200-250g dibagi menjadi 6 kelompok. Tikus dibuat luka eksisi dipungung. Terdapat kelompok kontrol [terdiri dari K1: kontrol negatif (NS), K2: kontrol positif (STZ 45mg/kgBB i.p.+NS), K3: (STZ+NS+Metformin 63mg/kgBB)] dan kelompok perlakuan [terdiri dari P1: (STZ+Oral JT 200mg/kgBB+NS), P2: (STZ+Topikal JT 20%), and P3: (STZ+Oral JT 200mg/kgBB+Topikal JT 20%)]. Kelompok kontrol dan perlakuan dirawat selama 14 hari. Pada akhir penelitian, ketebalan epitel di observasi menggunakan pemeriksaan histopatologi. Kandungan beta glukon pada jamur tiram mampu meningkatkan ketebalan epitel pada kelompok perlakuan (P1, P2, P3) secara signifikan ($p < 0,05$) dibandingkan dengan kelompok kontrol (K2 dan K3). Kesimpulannya, ekstrak jamur tiram oral dan topikal mempercepat proses penyembuhan luka kronis dibandingkan perlakuan lain.

Kata Kunci: Jamur Tiram (*Pleurotus Ostreatus*), Beta glukon, Penyembuhan Luka, Hiperglikemi, Ketebalan Epitel, Diabetes Melitus

ABSTRACT

Kristyawan, Firdaus. 2016. **The Effect of Oyster Mushroom Extract on Wound Healing Process through Increasing on the thickness of the epithelium in Hyperglycemia Rats Model.** Final Assignment, Nursing Program, Faculty of Medicine, Brawijaya University. Supervisors: (1) Dr. dr. Retty Ratnawati, M.Sc. (2) Ns. Heri Kristianto, S.Kep., M.Kep., Sp.Kep.MB.

Diabetes mellitus is a group of metabolic diseases characterized by hyperglycemia resulting from defects in insulin secretion, insulin action, or both. These conditions lead to the impairment wound healing process, one of which is epithelialization result of reduction of growth factors. The objective of this study is to determine that Oyster mushroom extract (*Pleurotus Ostreatus*) has a high content of beta glucan influence wound healing through increase on the thickness of the epithelium in Hyperglycemia rats model. Twenty four males of wistar rats weighing 200-250g were divided into six group. Rats were created excision wound on the back. The groups were control groups [consist of K1: negative control (NS), K2: positive control (STZ 45mg/kgBW i.p.+NS), K3: (STZ+NS+Metformin 63mg/kgBW)] and the treatment groups [consist of P1: (STZ+Oral OM 200mg/kgBW+NS), P2: (STZ+Topical OM 20%), and P3: (STZ+Oral OM 200mg/kgBW+Topical OM 20%)]. The control and treatment groups were given for 14 days. At the end of study, increase on the thickness of the epithelium were obeserved by histopathological examination. The Results showed that beta glucan content on oyster mushroom increase on the thickness of the epithelium ($p < 0,05$) In the treatment group (P1, P2, P3) than control group (K2 and K3). In conclusion that the oyster mushroom extract oral-topical accelerates the chronic wound healing process compare the other treatment

Keywords: Oyster Mushroom (*Pleurotus Ostreatus*), Beta glucan, Wound Healing, Hyperglycemia, Thickness of the epithelium, Diabetes Mellitus