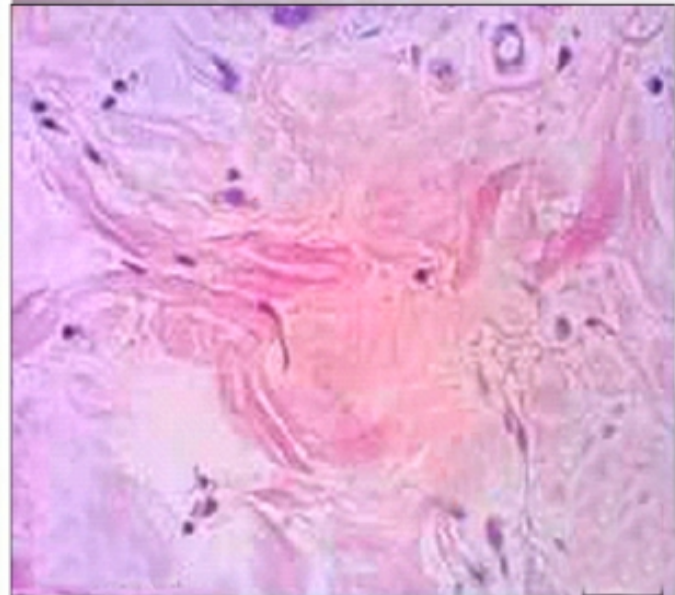


ISSN 1979-1305

VETERINARIA *Medika*



Vet Med | Vol. 7 | No. 2 | Hal100 - 199 | Surabaya, Juli 2014

**FAKULTAS KEDOKTERAN HEWAN
UNIVERSITAS AIRLANGGA**

Table of Contents

No.	Title	Page
1	The Influence of Carbofuran Exposure Toward White Pulp Diameter of Spleen of Mice (<i>Mus musculus</i>)	100 - 105
2	Antibacterial Activity of the Supernatant of Soil Isolate <i>Bacillus Subtilis</i> Against <i>Aeromonas Hydrophila</i> and <i>Staphylococcus Aureus</i> (In Vitro)	106 - 113
3	The Potential of Giving Synbiotic in Different Ages of Female Broilers on Histological of Ileum	114 - 119
4	Evaluation Toluidine Blue Staining to Identify Connective Tissue Mast Cells (CTMS) in Paraffin Block Thin Skin of Dog	120 - 125
5	Effect Using a Combination of MPA (Medroxy Progesterone Acetate) and Prostaglandin (PGF ₂ ±) Injection on the Percentage of Estrous and Pregnant on Sheeps	126 - 133
6	Spesifisity test with Dot Blotting of Epidermal Growth Factor (EGF) Isolated from Cumulus Oocyte Complex After in Vitro Maturation	134 - 139
7	Analysis of Immunogenicity on Inactivated Dengue Virus (DENV-1, DENV-2, DENV-3, DENV-4) in Mices (<i>Mus musculus</i>) as A Candidate Dengue Coctail Vaccine	140 - 145
8	Detection Antibody of <i>Brucella</i> on Cattle Slaughtered in Krian Slaughter House Sidoarjo Regency by Rose Bengal Test (RBT)	146 - 151
9	The Effect of Didecyldimethylammonium Chloride Disinfectants on Liver Histopathological of Duck Hybrid (<i>Anas Platyrhynchos Domesticus</i>)	152 - 157
10	The Effect of <i>Cosmos Caudatus</i> Leaf Ethanol Extract on Paracetamol Induced in Histopathologic Liver of (<i>Mus musculus</i>) Balb / C Male	158 - 165
11	Antibacterial Test of Rumbia Root (<i>Metroxylon sagu Rottb.</i>) Decoction Against Bacteria <i>Salmonella pullorum</i>	166 - 171
12	Effect of Sambiloto Leaf Extract (<i>Andrographis paniculata</i> Ness) to Histopathological Pancreatic Langerhans Islet Cells on Rats (<i>Rattus norvegicus</i>) with Cystic Ovary Model	172 - 177
13	Effect of Mangosteen (<i>Garcinia mangostana</i> L.) Pericarp Extract on TLR5 and CD14 Expression in Immunized Mice Against Newcastle Disease Vaccine	178 - 183
14	Cloning Gene Fragments Non-Structural 1 (NS1) of Dengue Virus Subtype 1 (DENV-1) as A Material Candidate of Vaccine Chimera	184 - 193
15	Effect of vitamin E (±â€“tocopherol) on the Number of Leydig Cell in Mice Treated with 2,3,7,8â€“tetrachlorodibenzo-p-dioxin (TCDD)	194 - 199

Effect of Sambiloto Leaf Extract (Andrographis paniculata Ness) to Histopathological Pancreatic Langerhans Islet Cells on Rats (Rattus norvegicus) with Cystic Ovary Model

Pengaruh Pemberian Ekstrak Daun Sambiloto (Andrographis paniculata Ness) Terhadap Gambaran Histopatologi Sel dalam Pulau Langerhans Pankreas pada Tikus Putih (Rattus norvegicus) Model Sistik Ovarium

1. Portia Sumarsono --> Mahasiswa Fakultas Kedokteran Hewan / vetunair@telkom.net
2. Widjiati --> Dosen Fakultas Kedokteran Hewan / widjiati@yahoo.com
3. Sri Pantja Madyawati --> Dosen Fakultas Kedokteran Hewan / pmadyawati@yahoo.com

Abstract

Polycystic Ovary Syndrome (PCOS) or cystic ovary is a disease of endocrine system, which is follicles on the surface were never ovulated and androgen levels in the body increased. Sambiloto leaf extract (*Andrographis paniculata* Ness) can stimulate the release of insulin and increase the effectiveness of insulin receptors so that no insulin resistance. The purpose of this research was to know the influence of sambiloto on decreasing the number of cells in pancreatic islets of Langerhans in rat model of cystic ovaries with insulin resistance. The rats were grouped into five groups, that are a negative control, positive control with testosterone injection 1 mg/kgBW during 28 days, P1 with testosterone injection 1 mg/kgBW during 28 days and extract of sambiloto with the dose 18 mg/kgBW, P2 36 mg/kgBW, and P3 72 mg/kgBW respectively during 21 days. The results of this research were analyzed using ANOVA and Duncan test. The results showed that the number of Langerhans islet cells decrease in compliance with increasing dose of sambiloto leaf extract. The conclusion of this research is sambiloto leaf extract can decrease the number of cells in the pancreatic islets of Langerhans on rats model of cystic ovary through improvement of insulin sensibility.

Keyword : *Andrographis, paniculata, Ness, PCOS, Insulin, resistance, Islet, of, Langerhans, ,*

Daftar Pustaka :

1. **Aryani, H.P, (2013)**. Perubahan Kadar Insulin dan Gambaran Perkembangan Folikel Tikus (*Rattus norvegicus*) Model SOPK Dengan Resistensi Insulin yang Diterapi Ekstrak Daun Sambiloto (*Andrographis paniculata*). Surabaya : [Thesis]. Fakultas Kedokteran. Universitas Airlangga
2. **Cibula D., R. Cifkova and M. Fanta M., (2000)**. Increased risk of non-insulin dependent diabetes mellitus, arterial hypertension and coronary artery disease in perimenopausal women with a history of the polycystic ovary syndrome.. . : Hum Repro. 15(4): 785-789.
3. **Hidayah, R., (2008)**. Pengaruh Lama Pemberian Ekstrak Daun Sambiloto (*Andrographis paniculata* Ness.) Terhadap Glukosa Darah dan Gambaran Histologi Pankreas Tikus (*Rattus norvegicus*) Diabetes. Surabaya : [Skripsi]. Fakultas Sains dan Teknologi Universitas Islam Negeri Malang