



CENTER OF HYPOXIA AND OXIDATIVE STRESS STUDIES (CHOSS)

DEPARTMENT OF BIOCHEMISTRY & MOLECULAR BIOLOGY
FACULTY OF MEDICINE UNIVERSITAS INDONESIA



Certificate

Presented to

Dessy Arisanty, SSi, MSc

as a **PARTICIPANT** and has presented a **POSTER** titled

"Effect of Roselle extract on testosterone level in Diabetic Mellitus rat after induced by Aloxan"

in

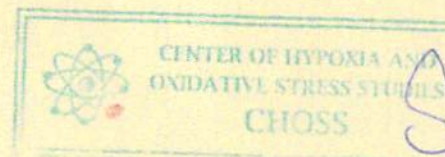
4th Annual Meeting of Hypoxia and Oxidative Stress Studies

"Role of Hypoxia and Reactive Oxygen Species in Tissue Regeneration"

Jakarta, November 22nd 2014



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DR. dr. Ani Retno Prijanti, MS.
Head of Biochemistry and Molecular
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Chair of 4th Annual Meeting of Hypoxia and
Oxidative Stress Studies



EFFECT OF ROSELLE (HIBISCUS SABDARRIF) EXTRACT ON TESTOSTERON LEVEL IN DIABETIC MELLITUS RAT AFTER INDUCED BY ALOXAN

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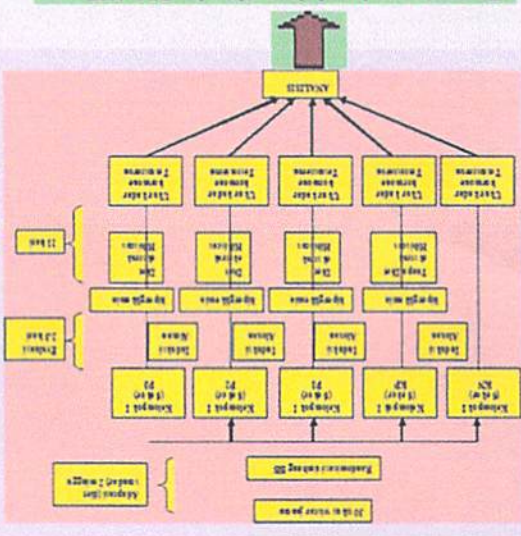
BACKGROUND

Hyperglycemia is a condition in which the glucose level in the blood plasma is much exceed the normal limits. Chronic hyperglycemia can cause damage, dysfunction of multiple organs, especially the eyes, nerves, kidneys and other complications due to interference micro and macrovascular (Gustaviani R, 2006). Diabetes mellitus has the potential to affect many aspects of human physiology because it is systemic as male infertility and sexual aspects. Approximately 50% of men with diabetes experience erectile dysfunction and 30% decrease in libido. Diabetes mellitus often affects a person's sexual potency of which about 50% of men with diabetes mellitus (DM) experience on erectile dysfunction and 30% libido decreased, one of which is due to decreased testosterone levels. In order model which conducted to aloxan induced to make diabetic rats. recent years various studies show that people with type 2 diabetes have low testosterone. Insensitivity to insulin at the hypothalamic level may contribute to the development of hypogonadotropic hypogonadism. This protein directly suppress the release of hormones from the hypothalamus Gonadotropin releasing that affect testosterone. Treatment of Diabetes Mellitus (DM) is currently combining antioxidant and anti-diabetic. Herbal remedies lately as an alternative to reduce oxidants in the body and the healing of various diseases. Roselle flower plant (*Hibiscus sabdariffa*) is one of the plants that serve as a source of antioxidants

OBJECTIVE OF STUDY

This study aimed to determine effect of roselle extract (*Hibiscus sabdariffa L.*) on serum testosterone levels in diabetic male white rats after induce with aloxan.

METHODS AND MATERIAL



DISCUSSION

Hyperglycemia creates oxidative stress form that will produce free radicals. If up to microvascular, free radical damage levelling cells and zeroth cells which are responsible for producing the Herbal lately as an antioxidant source as an alternative to reduce oxidants in the body caused by free radicals. Rosella as an antioxidant (AO) or change it to a more stable form (R*, RCO*) of Rosella has high levels of vitamin C and flavonoid which are effective to againt free radicals.

CONCLUSION

1. Testosterone level in diabetic rat (Hyperglycemic rat) was decreased.
2. Roselle extracts (*Hibiscus sabbdariffa L.*) can increase diabetic rat serum on testosterone levels after induced by aloxan
3. Rosella can be used as an alternative to the treatment of type 2 diabetes mellitus patients with impaired sexual function.

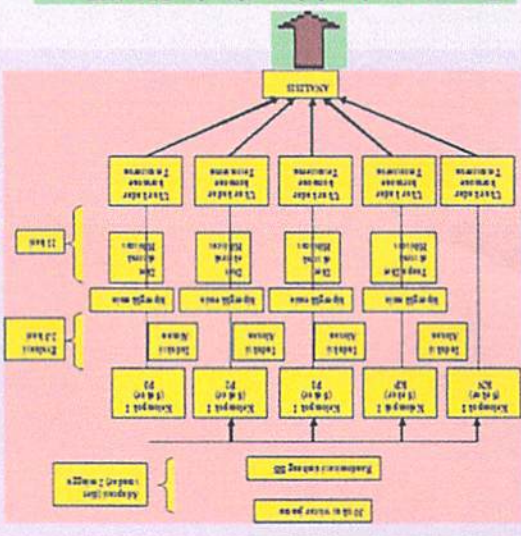
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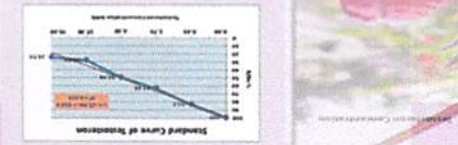
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RESULT



Group	Control 1	Control 2	Control 3	Control 4	Control 5
Mean	33.12	13.24	17.24	15.58	22.88
SD	3.72	1.72	1.82	1.64	3.28
Min	29.6	11.5	15.4	13.9	19.6
Max	36.6	14.9	19.0	17.0	26.1

