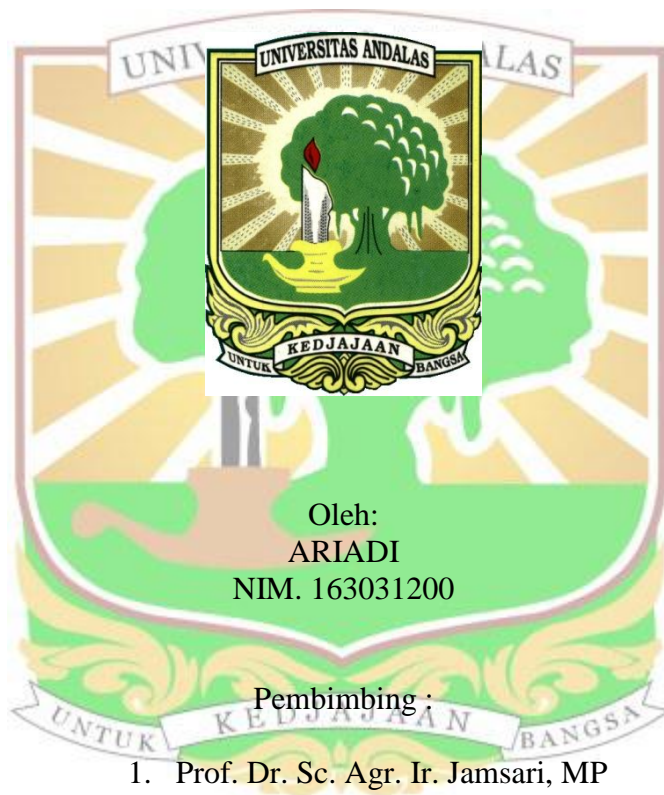# DISERTASI

HUBUNGAN ANTARA POLIMORFISME PROMOTOR GEN FSHR -29G>A rs 1394205 DENGAN KADAR FSH, KADAR ESTROGEN, USIA MENOPAUSE, POLA HAID, DAN KELUHAN PADA WANITA MENOPAUSE DI SUMATERA BARAT

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Abstrak

HUBUNGAN ANTARA POLIMORFISME PROMOTOR GEN FSHR 29G>A rs 1394205 DENGAN KADAR FSH, KADAR ESTROGEN, USIA MENOPAUSE, POLA HAID, DAN KELUHAN PADA WANITA MENOPAUSE DI SUMATERA BARAT

Ariadi

Angka harapan hidup manusia saat ini semakin panjang. Di Indonesia, diperkirakan tahun 2020 terdapat 27.08 juta penduduk berusia 60 tahun keatas yang berdampak pada meningkatnya menopause dengan segala keluhan. Diduga keluhan yang terjadi dipengaruhi oleh polimorfisme promotor gen FSHR -29 G>A. Penelitian ini bertujuan untuk menganalisis hubungan antara polimorfisme promotor gen FSHR -29 G>A dengan kadar FSH, estrogen, usia menopause, pola haid dan keluhan wanita menopause di Sumatera Barat.

Penelitian ini adalah observasional dengan desain studi *cross sectional*. Sampel terdiri dari 107 wanita menopause yang memenuhi kriteria inklusi dan eksklusi. Dilakukan anamnesis identitas, usia menopause, pola haid dan keluhan menopause kemudian pengambilan sampel darah untuk pemeriksaan estrogen dan FSH dengan metode ELISA dan polimorfisme promotor gen FSHR -29 G>A melalui pemeriksaan PCR dan sekuensing. Berdasarkan hasil sekuensing sampel dibagi menjadi mengalami mutasi atau tidak. Data dianalisis dengan uji t tidak berpasangan, Mann Whitney, chi square dan uji fisher.

Hasil penelitian didapatkan adanya polimorfisme promotor gen *FSHR -29 G>A*, tidak terdapat hubungan antara polimorfisme promotor gen *FSHR -29 G>A* dengan kadar FSH (p=0.232), estrogen (p=0,560), usia menopause (p=0.601), pola haid (p=0.563), keluhan hot flush (p=0.771), insomnia (p=0.571), vertigo (p=1.000), dispareunia (p=0.787), artralgia (p=0.960), palpitasi (p=0.789), alopesia (p=0.394), kulit keriput (p=1.000), vagina drysiness (p=0.473), penurunan libido (p=0.867) dan terdapat hubungan dengan pelupa (p=0.045) pada wanita menopause.

Dari penelitian ini dapat disimpulkan bahwa polimorfisme promotor gen *FSHR -29 G>A*, tidak berhubungan antara polimorfisme gen *FSHR -29 G>A* dengan kadar FSH, estrogen, usia menopause, pola haid, keluhan menopause kecuali pelupa di Sumatera barat.

Kata kunci: Polimorfisme promotor gen *FSHR -29 G>A*, Menopause, FSH, Estrogen, Pola haid, Keluhan Menopause

ABSTRACT

THE RELATIONSHIP BETWEEN POLYMORPHISM OF PROMOTER FSHR GENE 29G>A rs 1394205 WITH FSH, ESTROGEN LEVEL, AGE OF MENOPAUSE, MENSTRUATION PATTERN, AND COMPLAINTS IN MENOPAUSE WOMEN IN WEST SUMATERA

Ariadi

Human life expectancy is getting longer. In Indonesia, it is estimated that in 2020 there will be 27.08 million people aged 60 years and over, who becomes menopause with all its symptoms. This symptoms is suspected has relationship with FSHR 29 G>A gen polymorphism. This study aims to analyze the relationship between promoter FSHR -29 G>A gene polymorphism with FSH, estrogen level, age of menopause, menstrual patterns and complaints of menopausal women.

This research was observational with a cross sectional design. The sample consisted of 107 postmenopausal women. The examination consisted of anamnesis of the patient's identity, menopause age, menstrual patterns and complaints of menopause, and taking blood samples to examine the level of estrogen, FSH by ELISA and FSHR-29 G>A gene promoter polymorphism by PCR analysis and sequencing. After sequencing the sample has devided into having mutation or not mutation. Data were analyzed by unpaired t test, Mann Whitney, chi square and fisher test.

The results found that there was a promoter FSHR -29 G>A gene polymorphism in menopausal women, there was no relationship between FSHR -29 G>A gene polymorphism with FSH levels (p = 0.232), estrogen (p = 0.560), age of menopause (p = 0.601), menstrual pattern (p = 0.563), hot flush (p = 0.771), insomnia (p = 0.571), vertigo (p = 1,000), dyspareunia (p = 0.787), arthralgia (p = 0.960), palpitations (p = 0.789), alopecia (p = 0.394), wrinkled skin (p = 1,000), vaginal drysiness (p = 0.473), decreased libido (p = 0.867) and there was a relationship between FSHR -29 G>A gene polymorphism with forgetful complaints (p = 0.045) in menopausal women.

We concluded that there is a promoter FSHR -29 G>A gene polymorphism in menopausal women and there is no relationship between promoter FSHR -29 G> A gene polymorphism with FSH levels, estrogen, menopause age, menstrual pattern, complaints except forgetful in menopausal women in West Sumatra.

Keywords: Promoter FSHR-29 G>A gene polymorphism, Menopause, FSH, Estrogen, Menstrual pattern, Menopause complaints