

Women in Fertile Age Susceptible to Experience Anovulation Due to PCOS

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Population control in Indonesia is still a national problem up until now, but on the other hand there is also a big problem, namely the failure to conceive (infertility) in several couples of reproductive age (REC). Infertility is estimated to affect about 14-17% of REC, with about 60% of them caused by female, and 20% of them due to anovulation. In addition, about 5-10% of all women of childbearing age (WCA) have anovulation due to polycystic ovary syndrome (PCOS).

"PCOS is an endocrine disorder characterized by hyperandrogenaemia, anovulation, infertility and hirsutism with the prevalence in the population between 5-10%," said dr. Hermanus Suhartono Siswosubroto, Sp. OG (K) in an open examination of doctoral program at UGM Faculty of Medicine, Friday (20/1). On that occasion Hermanus defended his dissertation entitled "Pentanucleotide Polymorphism (tttta) n CYP11a Gena and CYP19 Gena Polymorphism In Patients with Polycystic Ovary Syndrome (PCOS) of Melanesia and Malay Ethnic Groups", Review levels of testosterone, follicle stimulating hormone, luteinizing hormone, Estrogen, Progesterone Serum and Homeostasis Model Assessment (HOMA).

Hermanus added though it is clear that PCOS is a disorder associated with family, with the risk for siblings 50%, the exact nature of inheritance has not been agreed. Family studies are conducted to highlight problems such as lack of consensus for the clinical phenotype of PCOS, also lack of consensus on the male phenotype.

Besides, there is no consensus criterion for diagnosis of PCOS. The criteria are based on the clinical picture of hyperandrogenism and/or biochemical, menstrual dysfunction, as well as an ultrasonographic picture of polycystic ovaries.



"Actually, the PCOS has a complex genetic basis where the interaction of genetic factors and environment can determine the development of the syndrome. It explains that polycystic ovaries can occur in conjunction with different clinical symptoms," said the Obstetrics-Gynecology functional specialist doctor in Dok II Jayapura General Hospital.

PCOS is generally defined as the presence of anovulatory such as menstrual disorders, oligomenorhea or amenorrhea, accompanied by clinical and biochemical hiperandrogen changes and polycystic ovary determined by ultrasound examination. Up until recently, most women with hirsutism who are regularly menstruating, says Hermanus, have polycystic ovaries. The prevalence of polycystic ovaries on ultrasound examination in the normal population is more than 20%.

Hermanus's research was conducted in the period of May 2008-May 2011 at Sardjito Hospital and Jayapura General Hospital with the objects of Melanesian and Malay ethnic group as PCOS sufferer as well as Melanesian and Malay normal women as controls. From the research none has been done on women of reproductive age who suffer PCOS of Melanesia and Malay race in Indonesia and this study sought about CYP 19 Gena polymorphisms associated with the occurrence of PCOS in women of Malay ethnic and Melanesian ethnic groups.

Results of research conducted by Hermanus, among others, resulted that the frequency of Gena CYP19 polymorphisms in patients with PCOS of Malay ethnic and Melanesians ethnic groups have a dominant allele is 6R. In addition there are significant differences in CYP11a Gena polymorphism in short allele (4R) and long allele (6R) between the PCOS and control groups of the Malay ethnic and Melanesian ethnic groups.

"Therefore in the future it is necessary to study other genetic factors to increase the success indicators of PCOS treatment," the man born in Manado, July 16, 1965 said.

After defending his dissertation in front of the examiner team consisting of Prof. dr. Mohammad Hakimi, Sp.OG (K), Ph.D., Prof. dr. Sofia Mubarika, M. Med. Sc, Ph.D., dr .Ahmad Hamim Sahadev, Ph.D., Prof. dr. Anwar Has, Sp.OG (K), M.Med.Sc., dr.Agus Surono., Ph.D., Sp.THT., Prof. Dr .dr. KRMT. Tedjo Danoedjo Oepomo, Sp.OG (K)., Prof. dr. Sri Kadarsih Soenjono, M. Sc, Ph.D., Dr. Med. dr. Indwiani Astuti, and dr. Titi Prihatiningsih Savitri, MA., M. Med . Ed., Ph.D., Hermanus finally passed *cum laude*. With these results Hermanus became the 1538th doctor graduating from UGM.



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