



**Proceedings**  
**of**  
**Jaffna Science Association**  
**Abstracts of Research Papers**

**Volume: 26**

**No: 01**

**Twenty-Sixth Annual Sessions**  
**31 July and 1-2 August 2019**

**Jaffna, Sri Lanka**

C01

**METABOLIC DERANGEMENTS AMONG SUB-FERTILE WOMEN SEEKING  
MEDICAL ADVICE AT TEACHING HOSPITAL, JAFFNA**

G.Shangeetha, K.J.Julids, S.Balakumar, K.Kandeepan and V.Arasaratnam  
Department of Biochemistry, Faculty of Medicine, University of Jaffna, Sri Lanka.

Subfertility is defined as failure to conceive after one year of unprotected regular sexual intercourse. It can be primary in couples who have never conceived or secondary in couples who have previously conceived. However reasons related to subfertility are not clearly defined in Sri Lanka (Ministry of Health, 2014). The findings of this study will provide baseline data regarding role of metabolic derangement among sub-fertile women. To assess metabolic derangements in sub-fertile women seeking medical advice at Teaching Hospital Jaffna.

A descriptive cross-sectional study was conducted among women aged between 19-45 years seeking medical advice for sub-fertility at Teaching hospital, Jaffna. Details were collected by using interviewer administered questionnaire. Anthropometric measurements such as height, weight, hip circumference and waist circumference were performed and blood samples collected to be analyzing fasting plasma glucose and fasting insulin level. This study was conducted among 50 subjects. The mean of Body Mass Index (BMI) was 24.7( $\pm$ 4.6) Kg/m<sup>2</sup>. Overweight, obese and central obesity ( $>0.85$  waist to hip ratio) were observed among 34%, 8% and 32% of women respectively. Among the total population 10% of women had fasting plasma glucose level more than 126mg/dL) and 42% of them had had plasma glucose range between 100-126mg/dl. In this study population 42% of women had hyperinsulinaemia ( $>10$  IU/L). On atherogenic lipid profile 48% of women had low level of HDL (100mg/dL). Majority of the women had regular menstrual period (74%) and 26% had irregular menstrual cycle, 22% of women had menorrhagia and 20% of women had hypomenorrhoea. The commonest identified metabolic derangements among sub fertile women were hyperinsulinaemia, impaired fasting blood glucose level, and impaired lipid profile.. Therefore it is recommended that measures should be taken to maintain fertility, remove risk condition and to identify subfertility as early as possible.

**Keywords:** sub-fertility, anthropometric, atherogenic, metabolic derangements.