

## CHARACTERISTICS OF THYROID FUNCTION TEST IN DOWN SYNDROME PATIENTS AT DR. SOETOMO HOSPITAL SURABAYA

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### ABSTRACT

#### **Background:**

*Thyroid dysfunction is one of the complications risks of Down Syndrome. Thyroid function tests in Down Syndrome is not always performed routinely. Thus, it may cause morbidities including mental retardation. Diagnosis of hypothyroidism in Down Syndrome is mostly based on laboratory findings because the clinical characteristics are mild and subclinical. Early diagnosis and treatment will provide a better outcome in Down Syndrome*

#### **Objective:**

*The aim of this study is to determine the characteristics of thyroid function test in Down Syndrome patients at Dr. Soetomo Hospital Surabaya.*

#### **Methods:**

*This is a descriptive observational research with data taken from the patient's medical records from 2009 – 2016 through total sampling. This study is held in Pediatric Endocrinology Outpatient Clinic Dr. Soetomo Hospital.*

#### **Results:**

*There were 71 samples join in this study. Forty – seven samples are male (66.2%) with ratio male:female 2:1. Mean of age was 13.16±2.04 months (1 – 12 months) with mean of TSH and fT4 levels were 10.16 µU/mL and 1.29 ng/dL respectively. Distribution of the thyroid function tests results showed central congenital hypothyroidism (39.44%), compensated hypothyroidism (29.58%), euthyroid (22.54%), primary congenital hypothyroidism (7.04%), and hyperthyroidism (1.41%).*

#### **Conclusions:**

*Thyroid function test in Down Syndrome at Dr. Soetomo Hospital mostly showed central congenital hypothyroidism.*

**Keywords:** Down Syndrome, Thyroid Function Test