

## CONGENITAL HYPOTHYROID PATTERN IN Dr. HASAN SADIKIN GENERAL HOSPITAL BANDUNG/FACULTY OF MEDICINE UNIVERSITAS PADJAJARAN

Minerva Riani Kadir, RM Ryadi Fadil, Novina Adriana, Faisal\*  
Habusari Hapkido, Trias Nugrahadi \*\*

\* Departement of Pediatrics and Child Health, Faculty of Medicine,  
Universitas Padjadjaran, Dr. Hasan Sadikin General Hospital, Bandung

\*\* Departement of Nuclear Medicine and Molecular Imaging, Faculty of Medicine,  
Universitas Padjadjaran, Dr. Hasan Sadikin General Hospital, Bandung

### Abstract

**Background** Congenital hypothyroidism is characterized by inadequate of thyroid hormone production in newborn infants. The incidence is approximately 1:2.000 to 1:4.000 newborns. Clinical manifestations are often subtle or not really present at birth, so scintigraphy is important to determine the underlying etiology of hypothyroid congenital.

**Methods** Descriptive retrospective study was carried out using medical record of patients with scintigraphy admitted to pediatrics endocrinology clinic at Hasan Sadikin Hospital from 2008 to March 2014.

**Results** There were 40 patients, 52% boys and 48% girls, with the highest prevalence in group 1–5 years old (32%). Major chief complaints were delayed developmental (64%), followed by feeding difficulty (20%), constipation (13%), and growth retardation (3%). Physical examination found 22% patients with macroglossia, 17% patients hypotonia and large fontanel, 15% patients with myxedematous facies, and 15% patients with umbilical hernia. Laboratory finding showed 50% with *free* T4 <0.5µg/dL, 47% *free* T4 0.5–1µg/dL, we found 55% with TSHs level 10–50 µIU/mL, and 30% with TSHs level over 100 µIU/mL. The radionuclide uptake using sodium pertechnetate (Tc-99m) finding showed agenesis (77%) as the major causes, 18% as dyshormogenesis, and two patients as ectopic thyroid.

**Conclusions** Most of patients were detected late as hypothyroid congenital, so early intervention cannot be performed. Scintigraphy is crucial to determine cause, severity of hypothyroid congenital.

**Key words:** congenital hypothyroid, scintigraphy