



POSTER PRESENTATION

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# Primary hyperlipidemia in children: clinical, biochemistry characteristics and outcome

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From 8th APPEs Biennial Scientific Meeting  
Darwin, Australia. 29 October – 1 November 2014

## Background

Primary hyperlipidemia is genetic dyslipoproteinemia. Without any intervention, cardiovascular diseases and acute pancreatitis may be occurred. The detection and appropriate management of pediatric hyperlipidemia can have a significant impact upon the disease course and can prevent complications.

## Objects

to describe the clinical and biochemical characteristics of hyperlipidemia in Vietnamese children and to evaluate outcome of treatment.

## Patients and methods

From 2007 to 2013, 30 children with primary hyperlipidemia were recruited and were treated with diet and/or lipid-lowering drug therapy at the National Hospital of Pediatrics, Hanoi, Vietnam. Clinical symptoms and biochemical finding, outcome of treatment were studied. Results: Among 30 cases from 28 families, 8 patients were mixed hyperlipidemia (MHL), 13 patients were hypertriglyceridemia (HT) and 9 patients were hypercholesterolemia (HC). Mean age of diagnosis was 5.5 years (1 month – 16 years). The rate of male/female was 13/17. Clinical manifestations included hepatomegaly (4 cases), xanthemas in the knees and elbows (5 cases), “creamy” blood (21 cases). Twenty cases were clinical asymptomatic. 8/28 patients had family history with hyperlipidemia and cardiovascular diseases. Serum cholesterol levels of HC group was  $9.2 \pm 4$  mmol/l. Serum triglyceride level of HT group was  $23.6 \pm 9.9$  mmol/l. MHL group had hypercholesterolemia ( $12.1 \pm 4.5$  mmol/l) and hypertriglyceridemia ( $20.3 \pm 10.5$  mmol/l). After interventions, HT group had the best outcome with serum triglyceride level was  $10.1 \pm 4.6$  mmol/l, next to MHL group with

serum cholesterol level was  $5.8 \pm 1.8$  mmol/l, and serum triglyceride level was  $9.5 \pm 5.2$  mmol/l; finally, serum cholesterol level of HC group was  $12.4 \pm 5.5$  mmol/l. Five infants with HT had the best outcome of treatment: serum triglyceride level decreased from 19 - 57.6 mmol/l to 5 - 10 mmol/l. Two patients with HC had the worsen results (unchanged blood lipid level).

## Conclusions

Primary hyperlipidemia had poor clinical manifestations and good results of treatment. Screening for primary hyperlipidemia help to prevent premature cardiovascular diseases.

Published: 28 April 2015

doi:10.1186/1687-9856-2015-S1-P124

Cite this article as: Khanh et al.: Primary hyperlipidemia in children: clinical, biochemistry characteristics and outcome. *International Journal of Pediatric Endocrinology* 2015 **2015**(Suppl 1):P124.

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