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Primary hyperlipidemia in children: experience of 11 years from a referral center in Vietnam

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Background

 Primary hyperlipidemia is a group of diseases caused by genetic defects involved in the synthesis, transport and metabolism of lipoproteins

•Without any intervention, early cardiovascular diseases and acute pancreatitis may be occurred.

•In Vietnam, primary hyperlipidemia was diagnosed by excluding secondary causes.



Objects

- To to describe the clinical, biochemistry and imagine characteristics of Vietnamese primary hyperlipidemia patients
- To review outcome of management

Patients and Methods

- •From 2006 to 2017 in NCH, Hanoi, Vietnam
- 59 children were diagnosed with primary hyperlipidemia
 Criteria of classification
 - Hypercholesterolemia (HC): normal blood triglyceride level
 Hypertriglyceridemia (HT): normal blood cholesterol level
 Mixed hyperlipidemia (MHL): both of elevated blood triglyceride and cholesterol level.
- •They were treated with diet and/or lipid-lowering drug therapy at the NCP.

Fig 2: The outcome of HC group

Results

59 cases from 51 families

Table 1: Demographics

Groups	Diagnostic age	Sex		Family
		Male	Female	history
HC (N=18)	6 m – 15 y	9	9	5
HT (N=34)	22 d– 12 y	14	20	9
MHL(N=7)	23 d – 8 y	4	3	0

Family History: hyperlipidemia, premature cardiovascular diseases

Table 2: Clinical and biochemical charecteristics

	HC (N=18)	HT (N=35)	MHL(N=7)
Xanthomas	12	1	0
Hight blood pressure	1	0	0
Aortic stenosis	1	0	0
Coronary stenosis	1	0	0
Acute Pancreatitis	0	1	1
Hepatomegaly	0	7	0
Asymtomatic	6	27	6
Serum cholesterol levels (mmol/l)	12.68 ± 4.9	7.37± 8.2	6.28 ± 1.11
Serum triglyceride level (mmol/l)	1.09 ±0.34	41.9±63.8	15.6±5.16



Fig 3: Pedigree of patient with FH



Fig 4: Pictures of patient with FH at 13 years old

Conclusions

Clinical manifestations in patients with primary hyperlipidemia are likely to be missed diagnosis. Screening for hyperlipidemia in high-risk infants should be developed to help preventing cardiovascular disease complications, as well as acute pancreatitis.

References

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