



Correspondence

Phenotypic heterogeneity of MELAS ☆☆☆



Keywords:

mtDNA
MELAS
Seizures
Stroke-like lesion
Gene
Mitochondrial disorder
Stroke-like episode
Stroke
Epilepsy

Letter to the Editor

With interest we read the article by Dvorakova et al. about 50 Czech patients carrying the m.3243A>G mutation [1]. It raises questions and concerns.

Since MELAS is a progressive disease, we should be informed about the long-term follow-up findings in the 50 mutation carriers. How many of the 17 patients without clinical manifestations at inclusion developed MELAS during follow-up?

How many of the patients had a family history positive for MELAS, and in how many families were first-degree relatives tested for the m.3243A>G mutation?

Altogether, 42% of the patients had seizures [1]. How many of the seizures in these patients occurred prior to a stroke-like episode (SLE), during a SLE, or were unrelated to SLEs? [2]

Which were the cardiovascular risk factors among those with ischemic strokes? Was ischemic stroke related to SLE's or independent of it?

Which was the cause of rhabdomyolysis in the two reported patients? [1] Was it a previous seizures, alcohol consumption, a drug, or other causes? Did those with rhabdomyolysis also have myopathy?

How many of those with psychiatric disturbances had abnormalities on cerebral MRI or EEG? How many of those with psychiatric disease had SLEs or seizures?

Since a number of drugs may be mitochondrion-toxic, in particular antiepileptic drugs (AEDs) (phenytoin, valproate, carbamazepine, phenobarbital), we should be informed how many patients were regularly taking AEDs or other drugs.

☆ There are no conflicts of interest

☆☆ No funding was received

Table 1

Pulmonary involvement in mitochondrial disorders.

Pulmonary disease	Mutated gene	Reference
Hyaline membrane disease	LARS2	[5]
Pulmonary hypertension	LARS2	[5]
Pulmonary hypertension	TMEM70	[6]
Interstitial fibrosis	NDUFA6	[4]
Acute lung hemorrhage	nr	[7]
Restrictive pulmonary insufficiency	tRNA(Leu)	[8,9]
Asthma	tRNA(Leu)	[10]
Poor ventilator response to hypercapnia	nr	[11]
Obstructive sleep apnea	nr	[12]

Nr: not reported.

How many of the 50 patients had undergone a lactate stress test? [3]
How many of those with normal serum lactate levels had an abnormal lactate stress test?

Recently it has been shown that also the lungs may be affected by a mitochondrial defect (Table 1) [4]. How many of the patients had lung disease, attributable to the m.3243A>G mutation?

Overall, this interesting study would profit from provision of information about the progression of the disease, family history, drug history, and diagnostic work-up.

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5 December 2016

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