



# Are Malignant Stroke-Like Lesions With Mass Effect in MELAS Iatrogenic?

Josef FINSTERER<sup>1,2</sup>, Sinda ZARROUK<sup>2</sup>

<sup>1</sup>Neurology and Neurophysiology Center, Vienna, Austria

<sup>2</sup>University of Tunis El Manar and Genomics Platform, Pasteur Institute of Tunis, Tunisia

**Corresponding author:** Josef FINSTERER ✉ ffigs1@yahoo.de

To the Editor

We read with interest Yesilbas et al.'s article about a 12-year-old male with mitochondrial encephalopathy, lactic acidosis, and stroke-like episodes (MELAS) syndrome who required right decompressive hemicraniotomy due to the mass effect of a temporo-occipital stroke-like lesion (SLL). It was reported that the patient survived with severe motor deficits and blindness. The study is appealing, but it does raise questions and concerns (3).

We disagree that the index case was the first to present with SLL-associated malignant cerebral edema requiring surgical decompression (3). Although malignant SLLs have been reported infrequently in the past, life-saving decompression was successfully performed in one of these cases, a 19-year-old female with recurrent SLLs (1).

The mtDNA copy number, heteroplasmy rates of the m.3243A>G variant, and the tissue in which the mutation was detected are all missing. It is crucial to provide these figures because it is conceivable that high heteroplasmy rates and low mtDNA copy numbers contributed to SLL malignancy.

It is also possible that the initially small SLL (Figure 1D – Yesilbas O et al.) grew due to the side effects of drugs administered acutely during hospitalization. Immunoglobulins, steroids, phenytoin, thiopental, and 3% NaCl are all drugs that can potentially change the size of an SLL (3). It is well-known that phenytoin and barbiturates can be mitochondrion toxic (2).

Furthermore, we should be told how visual symptoms lasting 15-20 minutes were noticed despite the patient's unconsciousness.

It is unclear whether the patient was SARS-CoV-2 negative or positive.

Overall, the study has faced several weaknesses that call into question the findings and interpretation. More information or supplementary data about the genetic results and treatment are required. Mitochondrion-toxic drugs should be strictly avoided in MELAS patients.

## ■ AUTHORSHIP CONTRIBUTION

The authors (JF, SZ) confirm responsibility for the following: study conception and design, data collection, analysis and interpretation of results, and manuscript preparation.

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