

ACUTE TETRAPARESIS AFTER IMMUNE CHECKPOINT INHIBITOR THERAPY

IT IS NOT WHAT IT SEEMS

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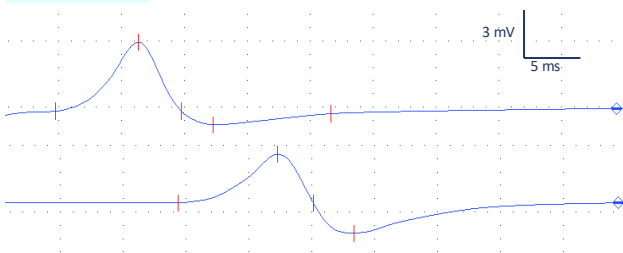


BACKGROUND: we present the case of a 66-year-old female patient with metastatic melanoma treated with Immune Checkpoint Inhibitor (ICI) from October to December 2024. Therapy was discontinued due to autoimmune hepatitis, managed with high-dose steroids (Methylprednisolone 80 mg BID). In January 2025, she developed tetraparesis with loss of ambulation, peaking within a few days and prompting hospitalization.

METHODS: upon admission in the Neurology Unit, laboratory tests, cerebrospinal fluid (CSF) analysis, serial neurophysiological studies were performed.

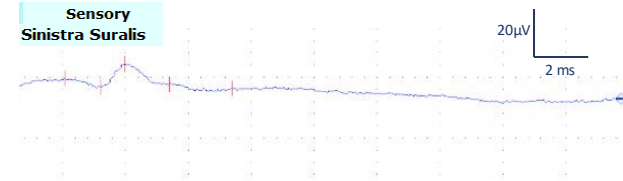
RESULTS: laboratory tests including CK and CSF were normal. The first neurophysiological study (day 9) showed a marked reduction of compound muscle action potential (CMAP) amplitudes with a prolonged distal CMAP duration. Sensory nerve conduction was normal.

Motor
Destra Tibialis



DML (ms)	CMAP (mV)	MNCV (m/s)
4.7	3.8/3.6	40.8

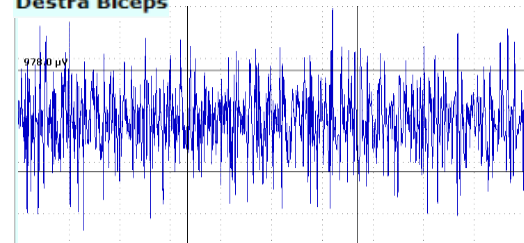
Sensory
Sinistra Suralis



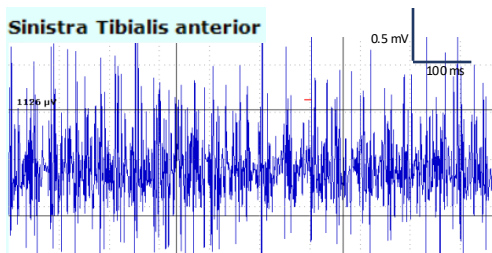
SAP (µV)	SNCV (m/s)
6.7	49.8

A diagnosis of motor axonal variant of Guillain-Barré syndrome was hypothesized and patient underwent IVIg without improvement. At follow-up study (day 20) findings were unchanged. Nevertheless, needle EMG exam did not show fibrillation potentials, but reduced duration motor unit potentials and full interference pattern with reduced amplitude, raising the hypothesis of myopathy due to high-dose steroids.

Destra Biceps



Sinistra Tibialis anterior



CONCLUSION: ICI may trigger immune-related disorders that are generally treated with high-dose steroids. Accordingly, clinicians should be also aware of iatrogenic (corticosteroid-induced) myopathy when they are facing ICI-related autoimmune neuromuscular disorders.



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