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Short Communication

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IMPLICATING IMMUNOTHERAPY IN MYASTHENIA GRAVIS

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Abstract:

Myasthenia gravis is an autoimmune neuromuscular disorder traditionally seen in bimodal distribution in young women in their 20s-30s or older men in their 60s-70s. Discovery of immunotherapy has brought immense hope in survival outcomes for patients with malignant melanoma, lung, renal and head/neck cancers but it also opens Pandora's box of immune-related toxicities for which early recognition and appropriate clinical management are paramount. Here we describe a case of immunotherapy induced myasthenia gravis de novo. A 77-year-old man with HPV+ stage IVA squamous cell carcinoma of the tongue presented with sudden onset orthopnea and dyspnea on exertion for the past day. One week ago, he received his second cycle of nivolumab as part of his neoadjuvant therapy. He was seen at an outside hospital and was found to be acute hypercapnic respiratory failure and placed on BiPAP. Additionally, he was started on empiric treatment for community-acquired pneumonia with levofloxacin and doxycycline and transferred to a tertiary care center for further management. On further evaluation, he endorsed diplopia, blurry vision, fluctuating muscle weakness that is worse at the end of the day, change in voice and proximal muscle weakness. His exam was consistent with bilateral ptosis, weak hip flexion and shoulder abduction, positive sniff test and poor vital capacity and negative inspiratory force values suggestive of impending respiratory and diaphragmatic failure secondary to myasthenic crisis. He was admitted to the ICU and placed on BiPAP and frequent NIF and VC monitoring. He was started on pyridostigmine but showed no clinical improvement on day 1 and hence was initiated on plasmapheresis from day 2 for a total of 10 days. Investigations showed positivity of Ach-R modulating and binding and blocking antibodies with negative voltage gated calcium channel antibodies. EMG revealed decrement of the compound muscle action potential in the repetitive stimulation test indicative of myasthenia gravis. He responded well to the above treatment and underwent successful left partial glossectomy and weaned off mechanical ventilation and has been cancer free so far. He is doing well on maintenance prednisone and pyridostigmine.

Biography:

Dr Nelson has a broad background in training in radiation oncology and palliative care and clinical oncology. She is currently a PGY-II internal medicine resident at the Sinai Hospital of Baltimore and is interested in pursuing a medical oncology fellowship.