

BACKGROUND

- Neuromuscular dysfunction ranging from headache to peripheral neuropathy has been reported in about 36.4% of patients with COVID-19
- More common in patients with severe disease

CASE DESCRIPTION

- A 63-year-old male patient with history of well-controlled DM II presented to the acute rehabilitation hospital following treatment for COVID-19 pneumonia.
- Upon presentation, he demonstrated new onset bilateral hand paresthesias and weakness (left worse than right). He also experienced bilateral foot paresthesias.

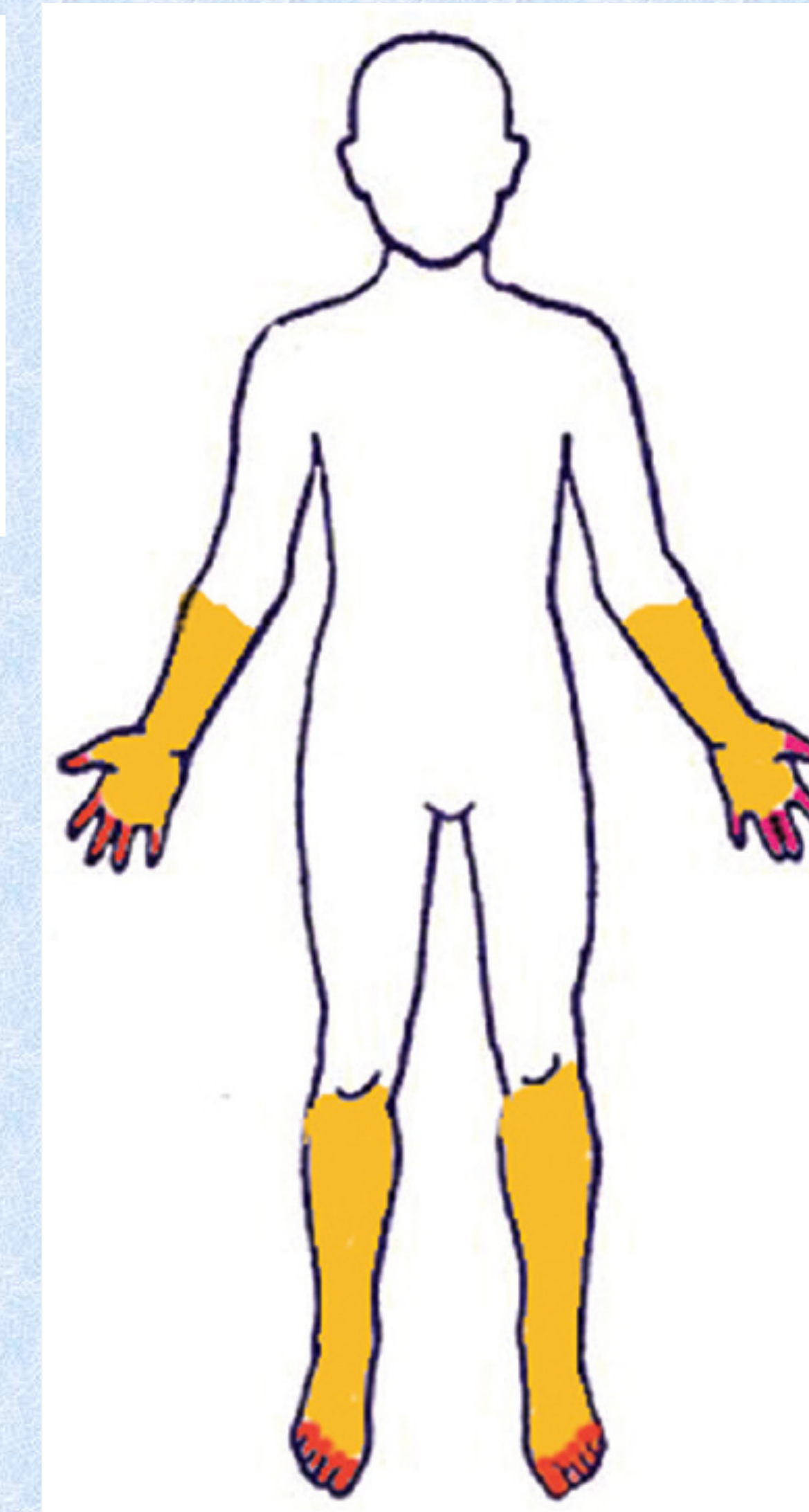
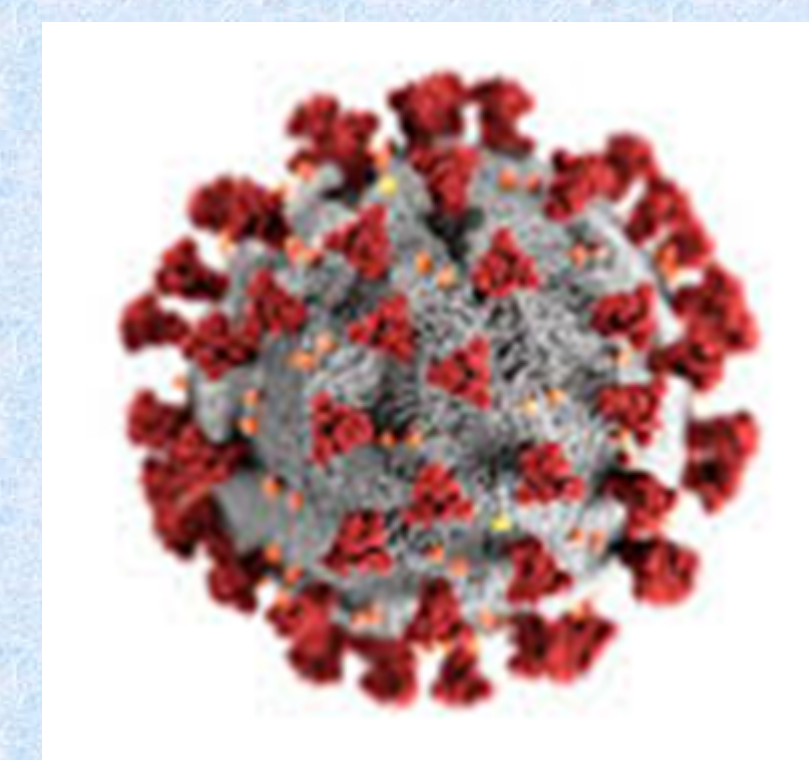
What is Known

- Neuromuscular manifestations have been reported in patients with COVID-19

What is New

- Length-dependent peripheral neuropathy may be seen following COVID-19 infection
- Targeted therapy and pain management can improve function and symptoms

- NCS/EMG findings showed a sensorimotor, axonal and demyelinating peripheral neuropathy predominantly affecting bilateral upper extremities.
- The patient completed hand therapy which improved his strength and his neuropathic pain was well controlled with gabapentin and acetaminophen.



CONCLUSION

- Neuromuscular dysfunction including length-dependent peripheral neuropathy may be seen in patients with COVID-19.
- Proposed mechanisms of injury include microcirculatory changes leading to distal nerve ischemia and increased leukocytes causing edema of the endoneurial space. History of DM II may increase risk.
- Providers should be aware of length-dependent peripheral neuropathy associated with a COVID-19 infection and understand how to treat with targeted rehabilitation.

REFERENCES

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