Client: Example Client ABC123
123 Test Drive
Salt Lake City, UT 84108
UNITED STATES

Physician: Doctor, Example

Patient: Patient, Example

DOB	4/1/1961
Gender:	Female
Patient Identifiers:	01234567890ABCD, 012345
Visit Number (FIN):	01234567890ABCD
Collection Date:	00/00/0000 00:00

SP Final Report

ARUP test code 8070060

Submitting Physician [redacted]

Clinical History

[redacted] with a past medical history significant for type 1 diabetes with peripheral polyneuropathy, HTN, HLD, and stable pituitary microadenoma. Patient presented in May 2021 with bilateral upper and lower limb weakness that was treated with steroids and lead to improvements over a couple weeks. Subsequently patient began to experience circumferential burning and aching in bilateral forearms with questionable extension into hands as well and in bilateral proximal lower limbs. Additionally, patient had c/o bilateral lower limb intermittent spasming when walking (right greater than left). Patient denies symptoms along dermatomal patterns and any dermatological symptoms.

Diagnosis

MUSCLE, RIGHT VASTUS LATERALIS, BIOPSY:

- ACUTE AND CHRONIC NEUROGENIC DENERVATION, MILD.
- TYPE II MYOFIBER ATROPHY, MILD.
- SEE COMMENTS.

05/06/23 [redacted]
I certify that I personally conducted the diagnostic evaluation on the above specimens and have rendered the above diagnosis(es):

[redacted]
electronic signature

University of Utah Health Care, Department of Pathology
Huntsman Cancer Institute
2000 Circle of Hope, RM 3100
Salt Lake City UT 84112

H=High, L=Low, *=Abnormal, C=Critical

Comments	Sections show myofiber grouping on ATPH 9.4 and 4.6, rare nuclear bags on H&E, and rare angulated fibers on NSE staining. There is no histopathologic evidence of inflammatory infiltrates, mitochondrial abnormalities, storage disorders, fibrosis, or inclusion bodies. The etiology of this acute denervation is unclear. The differential diagnosis of acute denervation would include but is not limited to motor neuron diseases, plexitis, radiculopathy, complications of diabetes, acute neuropathies, muscle trauma or critical illness polyneuropathy. Clinical correlation is required. Type II myofiber atrophy is a nonspecific finding that may be present in the setting of chronic steroid use, Cushings syndrome, disuse atrophy, myasthenia gravis, upper motor neuron disease, congenital hypotonia, hyperparathyroidism, paraneoplastic syndromes, connective tissue disorders and alcoholic myopathy. Clinical correlation is advised. Stains performed at ARUP Laboratories on block(s) 1A. Controls performed as expected.
Resident	[redacted]
Fellow	[redacted]
Gross Description	Received on 05/02/2023 is tissue designated as "muscle." The tissue is received fresh at ARUP Laboratories, Inc. It measures 0.9 x 0.6 x 0.2 cm and is divided into three portions. One portion is submitted for histochemical staining (frozen), one portion for light microscopy (formalin fixative), and one portion is retained for possible electron microscopy (glutaraldehyde fixative). [redacted] 05/03/23

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Microscopic Examination

SPECIMEN: MUSCLE.

Stains:

Paraffin sections:	H+E, thioflavin-S.
Cryosections:	H+E, modified Gomori trichrome, PAS, NADH-TR, ATPase pH 4.6 and 9.4, modified SDH, Oil-Red-O, non-specific esterase, cytochrome-C-oxidase, myophosphorylase, acid phosphatase.

Tissue quality: Adequate.

Myofiber size: There is mild variation in muscle fiber size. There are scattered nuclear bags and small, angulated fibers identified (highlighted by non-specific esterase stain). There is no grouped atrophy present.

Myofiber type: No fiber type disproportion is present. There is mild fiber type grouping and mild type II myofiber atrophy identified.

Myonuclei: Significant numbers of internal nuclei are not seen.

Myofibers changes:

Target/targetoid structures:	Not identified.
Moth-eaten fibers:	Not identified.
Necrosis:	Not identified.
Regeneration:	Not identified.
Rimmed vacuoles:	Not identified.

Blood vessels: Unremarkable.

Inflammatory response: There is no inflammation present in the specimen.

Interstitial tissue: Fibrosis is not seen in the muscle fascicles.

Other: The thioflavin-S stain for amyloid is negative. Cytochrome-C-oxidase/succinate dehydrogenase, myophosphorylase, and acid phosphatase are normal. Increased amounts of glycogen are not seen with PAS staining. The Oil-Red-O shows normal lipid stores.

VERIFIED/REPORTED DATES

Procedure	Accession	Collected	Received	Verified/Reported
Submitting Physician	SP-230-012494	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Clinical History	SP-230-012494	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Diagnosis	SP-230-012494	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Comments	SP-230-012494	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Resident	SP-230-012494	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Fellow	SP-230-012494	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Gross Description	SP-230-012494	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00
Microscopic Examination	SP-230-012494	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00

END OF CHART

H=High, L=Low, *=Abnormal, C=Critical