Tests for treatable causes of small-fiber polyneuropathy

Patient name
Medical record number
Date of birth

Date: _____/_____/_____

ordered today	not yet tested	abnormal value	normal value	
				BLOOD TESTS TO CONSIDER FOR ADULTS
				Chemistries (if high glucose consider DM, if high renal consider Fabry, mercury toxicity)
				Complete blood count (if low, consider B12 or copper deficiency, lead/arsenic toxicity)
				AST, ALT (liver function, if abnormal consider hepatitis or alcohol excess)
				Hemoglobin A1c (if high, consider 2 hour GTT)
				TSH thyroid screening
				Vitamin B12 levels (if 200-500pg/ml consider methylmalonic acid level)
				ESR (sedimentation rate; if elevated, consider inflammatory/dysimmune condition)
				ANA (antinuclear antibodies; higher titers suggest lupus or dysimmune conditions)
				Anti-Ro (SS-A), anti-La (SS-B) (consider Sjögren's if present, ~½ of neuroSS is seronegative)
				CRP (C-reactive protein; if elevated, consider inflammatory/dysimmune conditions)
				Complement component C3 (if low, consider dysimmune conditions including lupus)
				Complement component C4 (dysimmunity; if low C3 and C4, consider classic pathway)
				Hepatitis C serology (if abnormal consider testing for cryoglobulins)
				Lyme antibodies by Western blot (need to test depends on location)
				SPEP/IFIX (immunofixation tests for lymphoproliferative disorders including MGUS)
				Free κ/λ light chains (tests for less common lymphoproliferative disorders)
				IgA anti-TTG (transglutaminase antibodies, if present consider celiac)
				SECONDARY TESTS TO CONSIDER IN SPECIFIC POPULATIONS
				2 hour, 75 g fasting glucose-tolerance test (strongly consider for all at risk for DM)
				HIV (CDC recommends everyone ages 13-64 be tested ≥ once, high-risk more often)
				Phenotype-guided single gene sequencing (e.g., HSAN, SCN9A, Fabry, TTR)
				Whole exome or genome sequencing (consider in children, strong family history)
				Cryoglobulins, cryofibrinogens, viscosity (consider for myeloma, hep C, RA, SLE)
				Pyridoxine (if high, consider vitamin B6 neurotoxicity, if low, B6 deficiency)
				Anti-ds DNA, anti-Smith (consider if ANA present)
				Urine protein electrophoresis to identify Bence Jones paraproteins
				24 hour urine for arsenic, lead, mercury, cadmium (for artists, welders, miners)
				Abdominal fat-pad biopsy for amyloid
				OTHER TEST PERFORMED_____

Check for toxins and medications; e.g., cancer chemotherapy or immune checkpoint inhibitors, HIV therapy, colchicine, isoniazid, dapsone, hydralazine, lithium, phenytoin, vitamin B6, disulfiram, amiodarone, procainamide, perhexiline, streptokinase, nitrous oxide, metronidazole, nitrofurantoin, gold, thalidomide, TNF-antagonists, antimicrobials (chloramphenicol, fluoroquinolones, metronidazole, nitrofurantoin), history of GI surgery, malabsorption, alcoholism, exposure to inorganic arsenic, thallium, mercury, industrial toxins, organophosphate insecticides.

Tests reported as futile for general population screening in idiopathic SFN include serum ACE, heavy metals (arsenic, lead, mercury, cadmium), folic acid and vitamin B12 levels. Statin use was found not associated with SFN (Warendorf J. et al, Neurology, 2019).

References

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 Author: A.L. Oaklander MD PhD 08/17/21