

Autoimmune Rheumatic Diseases

- ANS abnormalities in 24% to 100% of ARD
- Difference due to methodology used
- Cardioautonomic abnormalities found in ARD in the absence of cardiac disease

Systemic Lupus Erythematosus

- Affects multiple organs
- Neuropsych manifestations
- CNS mostly affected (up to 60%)
- ANS frequently involved (up to 93%) but under-recognized
- Most often asymptomatic
- No correlation with disease activity, presence or absence of PN, presence or absence of neuropsych manifestations
- Questions: does a subclinical dysautonomia in SLE affect quality of life? Do patient develop clinical symptoms down the road?

Rheumatoid Arthritis

- 30% develop a small fiber neuropathy
- Cold feet, purple extremities, Raynaud's, orthostatic tachycardia, rarely OH
- Advanced RA: parasympathetic CV dysfunction (60% in one study), abnormal distal sweat output (> 50%)
- No correlation with duration of disease, RF titer, articular destruction
- Another study: no CV ANS abnormality in 43 patients with RA!

Sjögren's Syndrome

- About 60% develop a small fiber neuropathy
- Definite involvement of the ANS
- In one study: 50% of SS develop symptoms of ANS dysfunction and 66% had abnormal autonomic testing
- No correlation between ANS and decreased salivation or tearing
- Anti-muscarinic (M3) receptor Ab, cytokines inflammation of autonomic ganglia

Ankylosing Spondylitis

- Inflammatory disease of spine and SI joints
- Orthostatic tachycardia ?
- Fluctuating BP?
- Mechanisms unknown

Fibromyalgia

- Part of spectrum of primary disorders of the ANS
- Loss of circadian rhythm, increased sympathetic sensitivity, decreased sympathetic response to stressors (can explain increased fatigue, low BP). Urinary symptoms, IBS, etc

Scleroderma (Systemic Sclerosis)

- Autonomic neuropathy in CREST (parasympathetic and sympathetic)
- Could explain sleep disturbances and fatigue, GI disturbances, tachycardia
- ANS dysfunction early in scleroderma?

Summary

- CV Autonomic dysfunction common in ARD
- ANS dysfunction in SLE, SS, Scleroderma, FM, RA
- Disease duration, severity, damage not relevant
- Autoantibodies against ANS could be responsible
- Testing of ANS in ARD warranted to detect early CAN
- Significance of abnormalities found in the autonomic lab? In absence of symptoms?