C Meng et al. Journal of Rheumatology. June (2001) Vol. 28 #6 p 1271.

A study of the value of power Doppler sonography to detect poor circulation and atrophy in muscles.

Some, proposed, mechanisms for Diffuse RSI include the expectation of reduced blood flow. This may occur before and after symptoms become problematic. Atrophy might be interpreted as evidence of harm, but would be less useful in predicting problem cases. The technique may offer the potential to study Diffuse RSI in more detail.

37 inflammatory myopathy cases were compared with 6 healthy normal controls. Measurements were repeated on the time scale of weeks.

Muscles were examined for intra muscular blood flow and 'grey scale'. Both measures showed significant differences between cases and controls, blood flow showed the larger effect.

Blood flow was also shown to change with time during the study.

Comment

Reduced blood flow, can be a cause of muscular pain. This may be a factor in syndromes such as Fibromyalgia and hand-arm-vibration syndrome.

Temporal variation of blood flow may be of interest to research.

If validated, prospective studies may well adopt this tool. External and personal risk factors might be identified in this way. The tool may also find a role in health surveillance.