A case report: Cold stress challenge infrared thermography to differentiate Raynaud syndrome from the remote progression of pre-existing CRPS

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Infrared thermography (IRT) is considered as an essential test that can objectively confirm vasomotor dysfunction in the patients with complex regional pain syndrome (CRPS). Remote spreading to the other limbs, which is a feature of the progression of CRPS, leads to a change of treatment plan. Therefore, it is important to identify whether the pain aggravation of the limbs that has been not involved is caused by remote invasion of CRPS or not. Especially, Raynaud syndrome is an artery-occlusive disease triggered by cold or emotional stress, mainly in the hands. Its symptom mimics CRPS—cold pain with pale skin during occlusion phase and burning pain with red skin during recovery phase, so their differentiation would be difficult only with history taking, physical exam, and even conventional static IRT. Authors performed cold stress challenge IRT to a lower limb CRPS patient complained hand pain exacerbated recently.