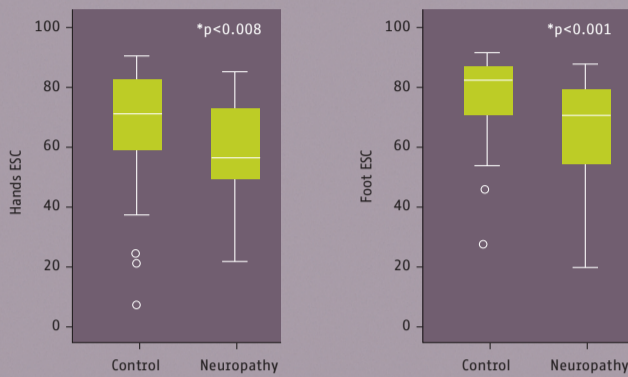# SUDOSCAN

A NEW TOOL FOR ASSESSING PERIPHERAL AUTONOMIC NEUROPATHY

PR. G. SMITH ET AL.

SUDOSCAN DETECTS SMALL FIBER NEUROPATHY

> **ESC was significantly reduced in the hands and feet among neuropathy patients compared to control subjects**

ESC: Electrochemical Sweat Conductance (SUDOSCAN)

SUDOSCAN CORRELATES SIGNIFICANTLY WITH PATIENT SYMPTOMS AND SIGNS

> **Foot and hands ESC correlated with pain assessed by visual analog pain scale**

> **Foot and hands ESC correlated with symptoms measured using the questionnaire component of the MNSI**

|	Foot ESC	Hand ESC	IENFD (distal leg)
Pain (VAS)	-.339 $p<0.05$	-.396 $p<0.02$	NS
Symptoms (MNSI)	-.420 $p<0.015$	-.469 $p<0.006$	NS
Signs (UENS)	-.356 $p<0.039$	NS	NS
Sureal Amplitude	.484 $p<0.005$	NS	.508 $p<0.019$
Peroneal Motor CV	NS	NS	.484 $p<0.03$

IENFD: Intraepidermal Nerve Fiber Density from a skin biopsy

MNSI: Michigan Neuropathy Screening Instrument – questionnaire of neuropathy symptoms

UENS: Utah Early Neuropathy Score – a scale of neuropathy signs and symptoms

SUDOSCAN HAS COMPARABLE DIAGNOSTIC PERFORMANCE TO IENFD AND QSART IN DETECTING NEUROPATHY

> **IENFD distal leg and foot QSART sweat volumes had similar area under the curve (AUC) to ESC values**
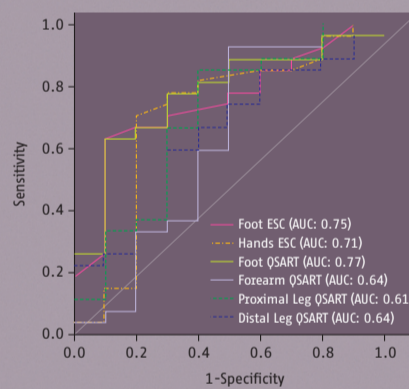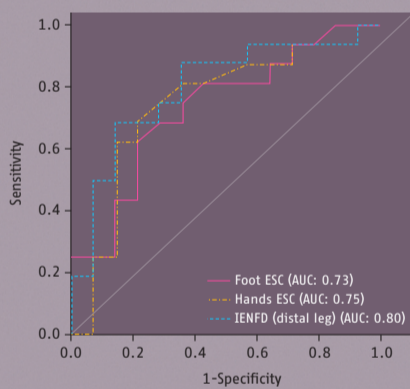
IENFD: Intraepidermal Nerve Fiber Density from a skin biopsy

QSART: Quantitative Sudomotor Axon Reflex Testing – sudomotor function testing

GOAL OF THE STUDY

> To evaluate the diagnostic performance of SUDOSCAN in a population of patients referred for possible peripheral neuropathy, including patients with both diabetic and non-diabetic neuropathies.

> These results are extracted from a study conducted at the University of Utah Department of Neurology, Salt Lake City, Utah.