Nerve conduction studies of the upper extremities, including both proximal stimulations and repetitive stimulation, do not appear to confer increased risk of cardiac conduction abnormality in those patients with central venous catheters who are not critically ill or have a prior history of arrhythmia” London et al (2016).

Abstract:

INTRODUCTION: It is unknown if central venous catheters bypass the skin’s electrical resistance and engender a risk of nerve conduction study-induced cardiac arrhythmia.

OBJECTIVE: To determine if nerve conduction studies affect cardiac conduction and rhythm in patients with central venous catheters.

METHODS: Under continuous 12-lead electrocardiogram monitoring, subjects with and without central venous catheters underwent a series of upper extremity nerve conduction studies. A cardiologist reviewed the electrocardiogram tracings for evidence of cardiac conduction abnormality or arrhythmia.

RESULTS: Ten control subjects and 10 subjects with central venous catheters underwent the nerve conduction study protocol. No malignant arrhythmias or conduction abnormalities were noted in either group.

DISCUSSION: Nerve conduction studies of the upper extremities, including both proximal stimulations and repetitive stimulation, do not appear to confer increased risk of cardiac conduction abnormality in those patients with central venous catheters who are not critically ill or have a prior history of arrhythmia.

Reference:


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