Microneurographic Technique

To the Editor:

I am writing in reference to the article, “After-Effects of Microneurography in Humans,” by Dr. Elizabeth Littell (Phys Ther, November 1981).

I am distressed to interpret from my reading that Littell’s experience with microneurographic technique caused severe discomfort and skin and muscle paresthesias lasting two weeks on the average in the majority of her subjects, that 9 percent of the subjects reported mild muscle weakness lasting two to four weeks, and that one subject reported skin paresthesias lasting up to three months.

In my experience in Germany and currently in my laboratory in Richmond, our subjects have never experienced the extent of nerve irritation described above, and I would never consider the aftereffects described in this study as “typical.” Typically, a small percentage of the subjects (3%) experience an extremely mild paresthesia lasting two to four days and never muscle paresthesias and weakness. Hagbarth, even in his early studies, reports the incidence of local neuropathy as 0.3 percent.

Based on the described aftereffects that Littell’s subjects experienced, I must question her electrode handling technique, warn her and other potential investigators against use of the microneurographic technique under those conditions, and refer them to our paper, which includes a description of the technique that is safe for the subject.

The microneurographic technique is a powerful method to study human neural activity, and as with all investigative techniques, it is the responsibility of the investigator to use the technique only after acquiring the skill to use it safely.

ALFRED J. SZUMSKI, PhD
Department of Physiology
Medical College of Virginia
Richmond, VA 23298

REFERENCES


The Author Responds:

In my article I reported that the majority of my subjects experienced moderate discomfort during the time electrodes were being placed in position and that 45 percent of responding subjects reported discomfort or unusual sensations while the electrode was in the recording position. Certainly a majority of subjects did not report severe discomfort. I might point out that for some subjects, passage of the electrodes through the cutaneous tissues amounted to severe discomfort. The aftereffects reported by a majority (72% of respondents) of my subjects was a short-term skin or muscle paresthesia. Such paresthesias were usually present within two to three days of the recording session and did not persist beyond one week following the onset of the paresthesia except in two instances. In only one case was the paresthesia reported as being severe in nature.

I completely agree with Dr. Szumski that microneurographic investigations should be undertaken only by persons who have had the opportunity to learn safe and appropriate techniques under the direction of persons who have experience in the field. I consider that the techniques that I developed under the direct instruction of Professor Karl-Erik Hagbarth fulfilled all necessary requirements for the safety of my subjects.

ELIZABETH H. LITTELL, PhD
Associate Director for Education
Department of Physical Therapy
The Institute for Rehabilitation and Research
Houston, TX 77030

Attitude Fakability

To the Editor:

I have just read the article “Attitudes of Physical Therapists in Wisconsin Toward Disabled Persons” (Phys Ther, February 1982). While I am flattered to be one of the authors of reference, I feel it is imperative that I comment on this research.

First, I would like to discuss the Attitudes Towards Disabled Persons (ATDP) scale used in this study. At the time I completed my research, this scale was being contested in reference to what exactly was being measured by it. In 1964, researchers identified at least two and possibly eight factors that are being measured. Factors common to several test groups were 1) hypersensitive-depressed (people with handicaps differ from the general population as they are more hypersensitive and more depressed) and 2) benevolent-inferior (the view that it is almost impossible for the disabled person to live a normal life). Therefore, one may accept the fact that disabled people differ in certain ways from physically normal people and yet