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 respond to 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
at the same time reject the notion that disabled people
are inferior and cannot live a so-called normal life.
These two factors, therefore, might cancel each other
out resulting in a somewhat neutral score. This leaves
the issue as to what the dimension—acceptance versus
nonacceptance—actually means.

My second concern is the subjective response iden-
tified during my research. This was expressed as a
lack of definition of terms used in the ATDP scale.
Frequently, subjects commented “depending on the
disability.” One subject wrote, “I think you are setting
up a totally erroneous picture . . . you cannot gener-
alize about disabled people any more than you can
generalize about people . . .” Thus, in spite of the
ATDP scale’s reported high reliability, this scale may
not be appropriate for use with physical therapists.
My research was apparently the first using the ATDP
scale with physical therapists. It is possible that the
intense relationship between physical therapist and
patient may make it difficult if not impossible for the
physical therapist to respond to this questionnaire.

Third is a question of how reliable this scale would
be in the situation proposed by the authors. As typical
of attitude scales, a certain degree of fakability is
possible. If I were competing to get into physical
therapy school under the stringent requirements of
today, I am sure I would respond to the scale in a
very positive manner.

I am sorry the editors of the journal chose not to
publish my article on my research in 1972. Many of
the doubts expressed above were expressed in my
article. While I am not an expert in this field, I believe
the article by Speakman and Kung attempts to de-
scribe attitudes in black and white terms rather than
in the gray tones they deserve.

BARBARA J. NOVICK, RPT, MS
8600 Waukegan #204
Morton Grove, IL 60053

Compression for Stasis Ulcers

To the Editor:

I would like to compliment Dr. Joe McCulloch for
submitting his case report, “Intermittent Compression
for the Treatment of a Chronic Stasis Ulceration,”
which appeared in the October 1981 issue of PHYSI-
CAL THERAPY. Since I first discussed this therapy with
Dr. McCulloch, I have found the use of intermittent
compression very effective in treating stasis ulcers.
One patient I recently treated was a 34-year-old man
who had a stasis ulcer for 14 years following multiple
episodes of thrombophlebitis. The patient had been
hospitalized over 15 times and had had multiple
surgeries including vein stripplings and a saphenous
bypass. According to the patient, the ulcer had been
healed for only a few months during the entire 14-
year period and had been open for 3 years prior to
intermittent compression therapy. Previous treat-
ments included Unna’s boot and elastic stockings.
Intermittent compression therapy consisted of one
hour of compression daily with pressures of 70 to 90
mmHg. The ratio of compression to release time was
60 seconds to 10 seconds. The ulcer initially measured
2 cm by 1.5 cm and was .5 cm deep. After two weeks
of treatment, the wound measured 1.5 cm by 1 cm
and was .3 cm deep. Within seven weeks, the ulcer
was nearly healed. Jobst stockings were ordered to
maintain compression and the patient made arrange-
ments to buy his own intermittent compression unit
for prophylactic home use. This patient is one of
several I have seen successfully treated in this manner.
Dr. McCulloch is to be congratulated for publicizing
this use of intermittent compression.

I have a reservation about treating stasis ulcers with
intermittent compression when the patient treated
also has significantly compromised arterial circula-
tion, however. In those cases, I am concerned about
the possibility of further compromising arterial blood
flow by applying excess pressure. Perhaps using lower
pressures (30–40 mmHg) and maintaining the legs in
a horizontal and not an elevated position would be
the appropriate treatment method.

JOHN HOVDE, RPT
Doctor’s Hospital of Staten Island
1050 Targee St
Staten Island, NY 10304