



MEDICAL TRIBUNE

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Point Stimulation for Pain Therapy The trick with the needles in your ear

VIENNA – Since the 1950s it has been known that reflex points in the ear can have a positive impact on regions of pain. Furthermore, the effect is intensified through repeat stimulation. Auricular point stimulation makes use of these findings and offers an effective means of treating patients

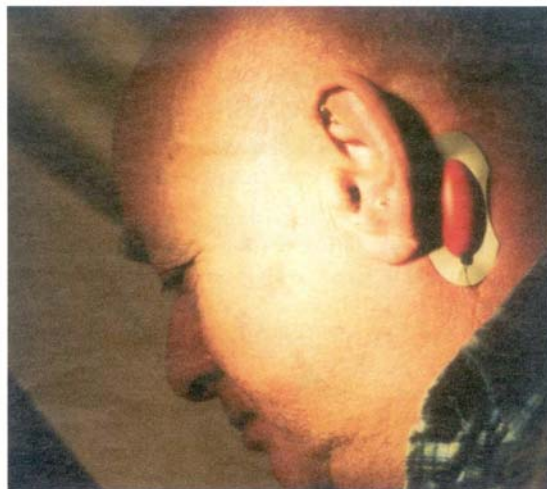


Foto: Venzano

The P-STIM is correctly positioned behind the patient's ear

The adequate treatment of chronic pain is a difficult therapeutic field. Long-term therapy with medication is characterized in not a few cases by unwelcome and sometimes serious side-effects. For a number of years now there has been growing recognition in the West of oriental methods of therapy, and acupuncture has since attained a firm status in the treatment of pain conditions. A further development of this form of therapy is acupuncture of the ear according to Nogier, which served as basis for the development of auricular point stimulation. This method makes use of the typical points of acupuncture but differs in its active mechanism.

The P-Stim is a small, programmable point stimulation device that can be fitted without

difficulty behind the ear and generates pin-point electric pulses under controlled conditions through clip-like permanent needles over a period of several days. "Pilot studies and the results of a clinical study on surgical patients showed that it was possible to greatly reduce pain medication and sometimes even to discontinue it completely," says Dr. J. Constantin Széles of the Vienna University Clinic for Vascular Surgery in describing the effectiveness of this device. Fitting the device is not at all difficult. The stimulation points are located with an application stylus. The fact that these points display a different resistance than their surroundings means that the device can issue a visual or acoustic signal when such a point is located. A positioning plaster, previously picked up by the stylus, is deposited on each of

three points with similar resistance, and the needles are applied with the application stylus. The battery-powered stimulation device is then fastened behind the ear with an integrated adhesive electrode, and connecting wires are joined to the needles. "The electric irritation caused by the needles can result in a state of permanent stimulation with a significantly enhanced impact," reports Dr. Széles. With conventional acupuncture, stimulation has only a temporary effect after the needles are applied. Consequently, the needles have to be frequently repositioned by the doctor, particularly for patients with chronic pain. "The point stimulation device is extremely comfortable to wear, enabling therapy with specific stimulation patterns to continue over several days without the patients being ▶

restricted in their mobility," says the specialist. "This is also an advantage in postoperative use where early mobilization has been proven to reduce complications." For treatments carried out to date on vascular patients the point stimulation device appears not only to have an analgesic effect but also to increase microcirculation during the application itself and to visibly improve the peripheral blood circulation.

Greater sense of general well-being

The effect exerted by point stimulation is based on the cumulative release of the body's own opiates. "Stimulation in the low frequency range results in

methionin-enkephalin release, while stimulation in the high frequency leads to the release of A-dinorphin, a highly active analgesic of the body's own making," explains Dr. Széles. "This helps not only to reduce pain but also to generally improve the patient's sense of well-being."

Treatment with the point stimulation device does not restrict the quality of the patient's everyday life, nor does it entail the numerous unwelcome side-effects associated with analgesics such as impaired reactions. Therapy with the periodic signals generally takes place over four days, with three hours of stimulation alternating with three hours of rest.

This stimulation pattern takes account of the refractory phase that sets in after six hours and is ideal,

according to the current state of knowledge, to achieve an additional increase of effectiveness. "A total therapy time of six weeks is recommended for long enduring chronic pains. Tests should be carried out within six months to check the success of the therapy using the VAS visual analog pain scale," advises Dr. Széles.

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Source: P-STIM: Interview with Dr. J. Constantin Széles, University Clinic for Vascular Surgery, Vienna, 2002

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