

Erratum: Impact of Scrambler Therapy on Pain Management and Quality of Life in Cancer Patients: A Study of Twenty Cases

In the article titled, “Impact of Scrambler Therapy on Pain Management and Quality of Life in Cancer Patients: A Study of Twenty Cases” published in pages 18-23, issue 1, vol. 23 of Indian Journal of Palliative Care,^[1] the sentence under the heading “The device” is written incorrectly as “In addition, there is no C-fiber stimulation; thus, no painful sensations are generated” instead the correct sentence is ‘The ST electrical stimulus is specifically designed to excite C fibres by using appropriate pulses width. The selection criteria is based on the fact that myelinated “A” class fibers respond to short duration pulses, and vice versa (Gasser, Herbert S, The Classification of Nerve Fibers, 1941). In conventional stimulation (TENS), these pulses typically range from 50 to 200 microseconds to specifically avoid exciting C Fibres at slow conduction. In ST the minimum impulse duration is within the width of milliseconds, therefore thousands times higher than the one used by TENS. By doing so it is possible to excite slow conduction fibres, but in the absence of an adequate emission coding the electric impulse on its own could produce pain. However, other properties of form/function/modulation allow the creation of synthetic action potentials, and their encoding in information strings able to substitute pain information with synthetic “non-pain” information. The information concept used can be studied in “Claude Shannon, A Mathematical Theory of Communication”. The ST algorithm that dynamically generates this specific strings of “no pain” information, is studied in order to achieve the goal of immediate and complete analgesia without paresthesia or anesthesia, re-modulation of the pain system, a high level of safety and long term efficacy.’

REFERENCE

1. Kashyap K, Joshi S, Vig S, Singh V, Bhatnagar S. Impact of scrambler therapy on pain management and quality of life in cancer patients: A study of twenty cases. Indian J Palliat Care 2017;23:18-23.

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