

Clinical Image

Exclusive Image Gallery on Human Spinal Cord Regeneration

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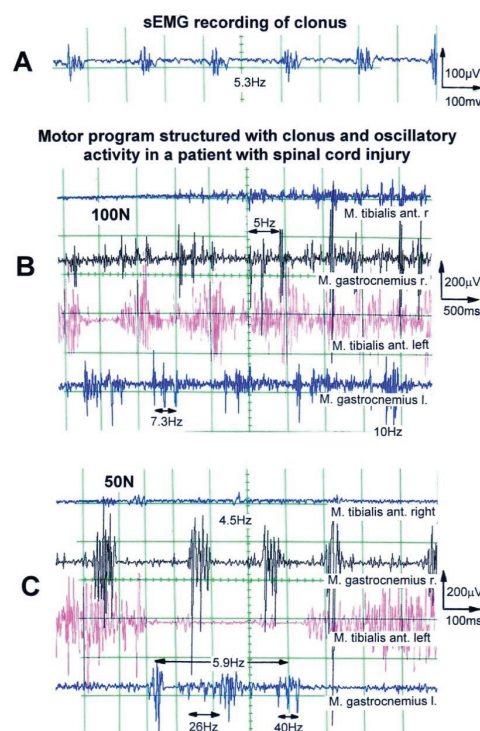


Figure 13: Motor program bursts in patients who suffered a spinal cord injury, structured with clonus activation and rhythmic firing of FF-type motor units. A. EMG recording of a clonus ($f = 5.3\text{Hz}$) in the right tibialis anterior muscle of a patient who suffered a complete spinal cord injury sub Th5/7; the patient was not exercising. B, C. Motor programs of a patient who suffered an incomplete spinal cord injury sub Th4 upon exercising on the special coordination dynamics therapy device at 50 and 100N (medium to high load). In B, motor program bursts are structured by rhythmicity; frequencies of 5 and 7.3Hz are suggested. No motor program in the right tibialis anterior muscle; some motor program structure in the right gastrocnemius muscle. In C (faster sweep), there is no motor program in the right tibialis anterior muscle. Mainly clonus activity at a frequency of 4.5Hz can be seen in the right gastrocnemius muscle. Two physiologic motor program bursts can be seen in the left tibialis anterior muscle (not structured by rhythmicity). In the left gastrocnemius muscle a motor program burst can be seen which is structured by 5Hz rhythmicity (clonus frequency, see clonus in the right gastrocnemius muscle) and higher frequency rhythmicity (26 and 40Hz).

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