GLOBAL YEAR AGAINST NEUROPATHIC PAIN

International Association for the Study of Pain

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Postamputation Pain

Neuropathic Pain

Neuropathic pain (see the fact sheet on "What Is Neuropathic Pain?") can result from nerve injury or disease affecting the peripheral or central nervous system.

Definition

- Phantom limb pain: Pain perceived as arising in the missing limb.
- Stump (Residual limb) pain: Pain perceived in the amputation stump or residual limb.
- Phantom sensations: Any sensations of the missing limb, except pain.

Clinical Features

- The onset of phantom limb pain is usually within the first week after amputation. The appearance may, however, be delayed for months or even years.
- Phantom limb pain is usually intermittent; only few amputees have constant pain. The intensity and frequency of phantom limb pain attacks usually decrease with time. Terms used to describe the pain include shooting, pricking and burning.
- Phantom limb pain is primarily localized to the distal parts of the missing limb, i.e. in upper limb amputees pain is normally felt in the fingers and the palm of the hand and in lower limb amputees, it is generally experienced in the toes, foot, or ankle.
- Phantom limb pain may be modulated by various internal and external factors, such as attention, distress, urination, manipulation of the stump and prosthesis use.
- Chronic stump pain includes neuroma, muscle and bone stump as pain sources.
- Clinical examination of the stump will often reveal sensory abnormalities (e.g.hypoesthesia, allodynia, hyperalgesia).
- Some amputees experience spontaneous movements of the stump ranging from small jerks to visible contractions.
- Phantom sensations, where the amputee experiences kinesthetic feelings of length, volume or other spatial sensation of the amputated limb, are very frequent immediately after the amputation but decrease with time.
- Phantom sensations rarely pose any major clinical problem.
- There is an overlap between phantom limb pain, phantom sensations and stump pain, and in the same individual the three phenomena often coexist.

IASP Working together for pain relief

Epidemiology

- Phantom limb pain occurs in approximately 70% of amputees. The number of patients with severe pain is in the range of 5-15%. Female gender and upper limb amputation may be associated with a higher risk of phantom limb pain. Phantom limb pain is less frequent in young children and congenital amputees. Preamputation pain increases the risk of phantom limb pain.
- Stump pain is frequent immediately after amputation. Chronic stump pain occurs in 5-10% of all amputees.
- Phantom sensation is experienced by nearly all amputees.

Pathogenesis

- The mechanisms underlying postamputation pain are complex and involve peripheral, spinal and supraspinal mechanisms (see fact sheet on “Mechanisms of Neuropathic Pain”).

Treatment

- There is a lack of evidence to guide clinicians with treatment. Treatment guidelines for other neuropathic pain conditions are probably the best approximation.
- Pharmacological treatment includes antiepileptic drugs, antidepressants, and/or topical preparations, along with other drugs.
- Nonpharmacological approaches include transcutaneous electrical nerve stimulation, hypnosis, mirror therapy, neurostimulation therapies, and others.

References

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