to improve the pain management practices in the hospital, with an initial emphasis on pain assessment.

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A6

Promising effects of donepezil when added to patients treated with gabapentin for neuropathic pain

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Aims: The clinical relevance of adding the acetylcholinesterase inhibitor donepezil to existing gabapentin treatment in patients with post-traumatic neuropathic pain was explored in this open-label study. The two drugs have previously shown synergism following co-administration in nerve-injured rats [1,2].

Methods: The study comprised two consecutive periods of minimum six weeks: (1) titration of gabapentin until highest tolerable dose or maximum 2400 mg daily; and (2) addition of donepezil 5 mg once daily to the fixed gabapentin dose. Efficacy and tolerability were assessed by ratings of pain intensity, questionnaires for pain and health-related quality of life, and reporting of adverse events and analgesic rescue medication. Pain scores were also analyzed using mixed-effects analysis (i.e. incorporating inter-subject variability) with the software NONMEM.

Results: Eight patients commenced treatment with donepezil upon the gabapentin titration period, of which two withdrew due to adverse events. Addition of donepezil reduced pain by >35% in four of six patients compared to gabapentin monotherapy. Mixed-effects analysis revealed that pain scores were significantly lower during co-administration ($p < 0.05$ combination vs. monotherapy). Donepezil was well tolerated in combination with gabapentin. At the end of study, three patients wished to continue combination therapy with gabapentin and donepezil.

Conclusion: Donepezil may provide additional analgesia to neuropathic pain patients with insufficient pain relief from gabapentin as monotherapy. Further confirmation in controlled clinical trials is justified. Mixed-effects analysis was sensitive enough to detect statistically significant effects, showing its usefulness in small-scale trials and/or when data is associated with high variability.

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A7

A pediatric patients' pain evaluation in the emergency unit

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Aims: Helsinki University Hospital for Children and Adolescents treats 0- to 16-year old pediatric and surgical patients. The patients arrive to the emergency unit by ambulance, referral or by decision of the triage nurse. The most common reason for visit is pain. VAS pain scale should be used, but pain is not evaluated properly. The aim of this study was to review literature on evaluation and treatment of pain in pediatric emergency unit.

Methods: A search from Cinahl and Finnish Medic-database covering last 10 years was performed using: pain, child, trauma, documentation, evaluation, emergency and assessment as keywords.

Results: Multiple pain scales are used in pediatric emergency units. A scale possibly useful for us is the CEM, College of Emergency Medicine tool. Non-medical procedural pain treatment: physical methods (e.g. cold, warm, massage), emotional support and cognitive-behavioral methods (e.g. relaxation, mental imagery and information) was found to be as useful in children. The aim of cognitive-behavioral methods is to decrease fear, stress and pain and improve self-determination. Non-medical treatment was found to be cost efficient and decrease the need of analgesics. It was also found that a child in pain should be raised in triage. Educated staff usually means that children get pain medication quicker.

Conclusions: Research on the effects of systematic use of a pain scales on pain treatment, pain and fear in pediatric patients would be interesting.

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B2

Proteomic analysis of cerebrospinal fluid gives insight into the pain relief of spinal cord stimulation

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Aims: Neuropathic pain is caused by a lesion or disease of the somatosensory nervous system affecting approximately 2% of the population. Current pharmacological treatments are ineffective for more than 50% of the patients and often give much adverse effects. Spinal cord stimulation (SCS) is an alternative cost-effective treatment with high efficacy, prolonged pain relief, few side effects. We have compared the cerebrospinal fluid (CSF) proteomes from neuropathic pain patients during pain relief induced by SCS and during pain sensation without SCS, to gain further insights into the mechanisms behind the obtained analgesia.

Methods: Paired CSF samples were taken from SCS-responsive neuropathic pain patients after the SCS had been turned off for 48 h and when the SCS had been used normally for three weeks. Thus, each patient acted as their own control. The corresponding pro-