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FENS Forum 2010 - Amsterdam

- Posters: to be on display from 8:00 to 13:15 in the morning and from 13:30 to 18:45 in the afternoon. Poster sessions run from 09:30 to 13:15 in the morning and from 13:30 to 17:30 in the afternoon. A one hour time block is dedicated to discussion with the authors (authors should be in attendance at their posters as from the time indicated.)
 - For other sessions, time indicates the beginning and end of the sessions.
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First author Jongsma, Marijtje L.A. (poster)

Poster board D86 - Tue 06/07/2010, 13:30 - Hall 1

Session 173 - Pain 4

Abstract n° 173.4

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Title Neuropsychological and event-related potential indices of patients suffering from chronic pancreatitis: Does chronic pain have neurodegenerative properties?

Text Chronic pancreatitis is a serious condition accompanied by severe chronic, relapsing pain. Chronic pain patients often show cognitive impairment. Thus, chronic pain seems to affect cognitive functioning. The main aim of this project was to test the hypothesis that chronic pain patients show cognitive deficits. In addition, five possible explanations for observed deficits were explored.

a Chronic pain patients have an increase in depressive symptoms.

b Chronic pain patients have a decrease quality of sleep.

c Chronic pain patients often use opioid analgesia.

d Chronic pancreatitis is sometimes caused by alcohol abuse.

e Chronic pain has neurodegenerative properties.

Neuropsychological assessment of 16 patients suffering from chronic pancreatitis and 16 healthy matched controls was obtained with respect to 3 domains of cognitive functioning: 1: psychomotor speed; 2: executive functioning and attention; 3: learning and memory. Multilevel analyses were conducted taking into account depression, sleep disturbances, use of opioids, history of alcohol abuse, and pain duration.

With respect to all 3 domains of cognitive functioning, pain duration was an important predictor. In some subdomains it was a better predictor than group (pain vs controls). The size of the effect of pain duration was amongst the largest (compared to the other variables).

Apkarian and colleagues reported that chronic pain patients show a loss of gray matter in especially the frontal cortex. However, they failed to find concurrent cognitive deficits that are more commonly reported in the case of chronic pain.

Thus, although there is some solid evidence that chronic pain patients show cognitive deficits, little attempt has been made to explain those deficits in terms of the neuro-degenerative properties of chronic pain itself.

In all, the current study adds strong evidence to the novel concept of chronic pain being a neurodegenerative disease.

Theme D - Sensory and motor systems
Pain - Thalamic and cortical processing
