ful to harmful and "Encounters with health care" from empowering to humiliating.

Conclusions: The suffering of women when exposed to painful endometriosis can lead to missed opportunities in several important areas of life. Hormonal and symptomatic treatments, as well as positive encounters of health care are important for the women's possibility to develop working surviving strategies.

http://dx.doi.org/10.1016/j.sjpain.2016.05.011

Predictors of long-term opioid use among chronic nonmalignant pain patients: A register-based national open cohort study

C.A. Hansen[a,*], B. Abrahamsen[b]

[a] *Clinic of Neuroanaesthesiology, Rigshospitalet, Copenhagen, Denmark*
[b] *Odense Patient Data Explorative, University of Southern Denmark, Denmark*
E-mail address: carrinna.hansen.01@regionh.dk (C.A. Hansen).

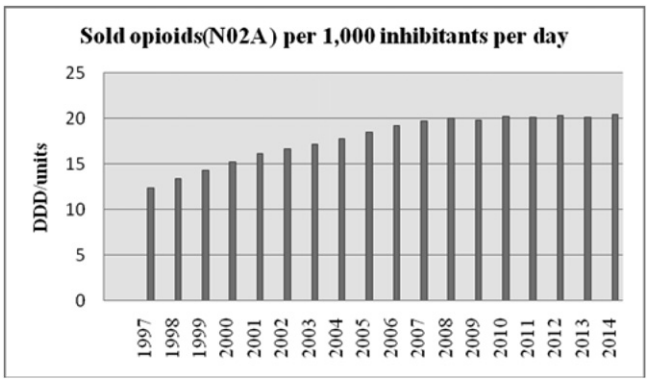
Aims: (1) To determine the distribution and determinants of opioid use among chronic nonmalignant pain (CNP) patients. (2) To identify the patient, treatment and socioeconomic characteristics as determinants for potential risk groups.

We hypothesized that CNP patient who use opioids for more than 1 year would differ in demographics and comorbidity from other patients who use opioids for less than 6 months.

Methods: National registers were used to include patients beginning opioid therapy in the period 01/01/2000–31/12/2014 (incl.). The cohort consists of adults aged 16 years or older who redeemed at least one prescription for an opioid product and residing in Denmark, analysing only patients who survived for at least two years. Follow-up minimum one year after the last redeemed opioid prescription or to 31/12/2015. Participants are included at first redeemed prescription for an opioid product using the ATC codes N02AA01–N02AX06. Patients were then classified as either opioid use for more than 1 year (group A), as opioid use for more than 6 months but less than 1 year (group B) and opioid use equal to or less than 6 months (group C).

Results: The quantity of sold opioids has been increasing during 1997–2008, with a fairly stable but high level since. It is expected that we will be able to determine patterns and the distribution of opioid use among CNP patients in Denmark. Consequently, describing potential risk groups of opioid use based on patient, treatment, comorbidity, socioeconomic and demographic characteristics. Data analysis is ongoing.

Conclusions: It is expected that this study will serve as a significant supplement of existing knowledge in the area of opioid consumption among CNP patients in Denmark. In a future perspective of prevention and health promotion initiatives of the growing public health problem CNP, it might be beneficial to include perspectives of risk assessment of long-term opioid use.



http://medstat.dk/ statistics for annual sales of medicines in Denmark 1996–2014.

http://dx.doi.org/10.1016/j.sjpain.2016.05.012

Coupled cell networks of astrocytes and chondrocytes are target cells of inflammation

Elisabeth Hansson[a,*], Eva Skiöldebrand[b,c]

[a] *Department of Clinical Neuroscience and Rehabilitation, Institute of Neuroscience and Physiology, The Sahlgrenska Academy, University of Gothenburg, Sweden*
[b] *Section of Pathology, Department of Biomedical Sciences and Veterinary Public Health, Swedish University of Agricultural Sciences, Uppsala, Sweden*
[c] *Department of Clinical Chemistry and Transfusion Medicine, Institute of Biomedicine, Sahlgrenska University Hospital, Gothenburg University, Gothenburg, Sweden*
E-mail address: elisabeth.hansson@neuro.gu.se (E. Hansson).

Aims: Systemic low-grade inflammation can be initiated *in vivo* after traumatic injury or in chronic diseases as neurodegenerative, metabolic and autoimmune diseases. Coupled cell networks are target cells leading to the spread of inflammation and changes in biochemical cellular parameters. Do astrocytes and chondrocytes behave in a similar way in an inflammatory reactive state with respect to Ca^{2+} signaling, actin filaments rearrangement, receptor properties, pro-inflammatory cytokine release etc?

Methods: Primary cultures of astrocytes and chondrocytes, respectively, were incubated with lipopolysaccharide (LPS) (10 ng/ml, 24 h) or interleukin-1β (IL-1β) (5 ng/ml, 24 h) to induce inflammatory reactivity. Ca^{2+} signaling, Na^+/K^+-ATPase-, connexin 43 (Cx43)-, and Toll-like receptor 4 (TLR4)- expressions, actin filament organization, and IL-1β release were analyzed.

Results: Stimulation with IL-1β or LPS altered the Ca^{2+} signaling from single peaks to oscillating waves and increased the expression of Cx43 and TLR4, and decreased expression of Na^+/K^+-ATPase. A disruption of the actin filaments with more pronounced ring-formed structures was found in inflammatory induced astrocytes and chondrocytes which in turn affects Ca^{2+} oscillations. Additionally a release of active matrix metallopeptidase-13 was found in media from IL-1β stimulated chondrocytes.

Conclusions: Our data show that cellular mechanisms of healthy chondrocytes as well as inflamed, resemble the coupled cell networks of astrocytes. Chronic, low-grade inflammation can influence coupled cell networks in one or several organs, leading to co-morbidity. It is crucial that inflammatory affected cells in various