Scandinavian Journal of Pain 4 (2013) 84–85

Contents lists available at SciVerse ScienceDirect

Scandinavian Journal of Pain

journal homepage: www.ScandinavianJournalPain.com

Editorial comment

Chronic pain and mortality

Helge Kasch*

Danish Pain Research Center, Department of Neurology, Aarhus University Hospital, Denmark

In this issue of the *Scandinavian Journal of Pain*, Nitter and Forseth report the mortality rate in women with self-reported chronic pain in a 17-year follow-up study [1]. This is by far the longest observation period reported on this subject, and the study supports previous findings of raised mortality in patients with chronic pain.

In two studies by McBeth et al. they found that widespread body pain was related to an increased incidence of cancer and, furthermore, to a reduced probability of survival after cancer and cardiovascular disease [2,3]. In patients with muscular and widespread pain, other comorbidities are found as well. Having widespread pain or chronic regional pain was shown to be significant in 95 discordant twins [4], with pain affecting physical health, functioning, and sleep suggesting that acquired chronic pain was a risk factor. But chronic pain may also lie in the genes. Recent genetic pain studies seem to point out different types of response to pain and other psychophysical events based on e.g. the catechol-O-methyltransferase gene polymorphism [5]. Having a high pain-sensitive COMT genotype was in some studies related to the development of fibromyalgia/widespread pain [6], but others, including the Norwegian HUNT studies, found neither this association nor an association with mortality, psychiatric illness, or other comorbidities [7–9].

The study by Nitter and Forseth in this context (see "Highlights" of the paper)

Nitter and Forseth were interested in development of fibromyalgia and widespread pain and set up a study in which a minor proportion was physically examined, but most of the patients were followed only by questionnaire. Mailed pain questionnaires were sent to approx. 2500 women, with 2038 responders in Arendal, Norway. The women were aged 20–50 years at the time of inclusion. First assessment took place in 1990 and the following assessments after 5 and 17 years, and finally data were linked to Death Registry data.

This long-term follow-up study confirms the findings reported by McBeth of higher mortality rates in patients with chronic pain and widespread pain, but does not confirm an increased risk of cancer death or cardiovascular death. In contrast, Nitter and Forseth found that chronic pain patients died more often from unknown or other causes not related to cardiovascular disorder, cancer, or suicide. McBeths population consisted of both sexes, but similar cohort size of women was obtained in the present study.

Again, patients with chronic widespread pain showed higher mortality rates than patients with chronic regional pain, which was also associated with a higher mortality than controls.

As was the case with the McBeth studies, in this cohort we have no information on concurrent use of medication and other comorbidities, no information on use of drugs/alcohol, activity level, job, social and marital status or level of leisure activities.

As shown in Table 1, the crude mortality rate was increased by a factor of 2.4 in chronic regional pain patients and 4.9 in chronic widespread pain patients, but also anxiety and sleep disturbances influenced mortality [1].

Conclusion and implications

Long-term follow-up studies are needed in order to detect any development in comorbidity and mortality in chronic pain patients. The strength comes when combining these questionnaires with central registries, and, as for the HUNT 2 and 3 studies, blood tests with genetic testing. This study includes information about age, SF-36 related issues, and background statistics from the region, but not about co-morbidity, other risk factors [10] social factors, use of medication, smoking habits, alcohol consumption, and physical activity. Finding an increased mortality risk in chronic pain patients is of importance, but should be interpreted with caution. The study, however, confirms previous findings of a significantly increased mortality rate in females. The debate is still open, but further studies are needed as concluded by the authors. Important also for the future organization of pain treatment, if mortality is raised by a factor 5 in chronic widespread pain, we should further improve facilities for pain treatment and funding for pain research.

References

[1] Nitter AK, Forseth KØ. Mortality rate and causes of death in women with self-reported musculoskeletal pain; results from a 17-year follow-up study. Scand J Pain 2013;4:86–92.
[2] McBeth J, Silman AJ, Macfarlane GJ. Association of widespread body pain with an increased risk of cancer and reduced cancer survival: a prospective, population-based study. Arthritis Rheum 2003;48:1686–92.

DOI of refers to article: http://dx.doi.org/10.1016/j.sjpain.2012.12.002.
* Tel.: +45 78463420.
E-mail address: helge.kasch@dadlnet.dk

http://dx.doi.org/10.1016/j.sjpain.2013.01.002

[3] McBeth J, Symmons DP, Silman AJ, Allison T, Webb R, Brammah T, McFarlane GJ. Musculoskeletal pain is associated with a long-term increased risk of cancer and cardiovascular-related mortality. Rheumatology (Oxford) 2009;48:74–7.
[4] Aaron LA, Arguelles LM, Ashton S, Belcourt M, Herrell R, Goldberg J, Smith WR, Buchwald D. Health and functional status of twins with chronic regional and widespread pain. J Rheumatol 2002;29:2426–34.
[5] Diatchenko L, Slade GD, Nackley AG, Bhalang K, Belfer I, Max MB, Goldman D, Maixner W. Genetic basis for individual variations in pain perception and the development of a chronic pain condition. Hum Mol Genet 2005;14:135–43.
[6] McLean SA, Diatchenko L, Lee YM, Swor RA, Domeier RM, Jones JS, Jones CW, Reed C, Harris RE, Maixner W, Clauw DJ, Liberzon I. Catechol O-methyltransferase haplotype predicts immediate musculoskeletal neck pain and psychological symptoms after motor vehicle collision. J Pain 2011;12:101–7.
[7] Hagen K, Pettersen E, Stovner LJ, Skorpen F, Zwart JA. No association between chronic musculoskeletal complaints and Val158Met polymorphism in the Catechol-O-methyltransferase gene. The HUNT study. BMC Musculoskelet Disord 2006;7:40.
[8] Hagen K, Stovner LJ, Skorpen F, Pettersen E, Zwart JA. COMT genotypes and use of antipsychotic medication: linking population-based prescription database to the HUNT study. Pharmacoepidemiol Drug Saf 2008;17:372–7.
[9] Hagen K, Stovner LJ, Skorpen F, Pettersen E, Zwart JA. The impact of the catechol-O-methyltransferase Val158Met polymorphism on survival in the general population – the HUNT study. BMC Med Genet 2007;8:34.
[10] Holm LW, Carroll LJ, Cassidy JD, Skillgate E, Ahlbom A. Widespread pain following whiplash-associated disorders: incidence, course, and risk factors. J Rheumatol 2007;34:193–200.