Key Points

1. Many Chiari, and especially syringomyelia, patients suffer from neuropathic pain even after corrective surgery
2. Study used a large health insurance claims database to study characteristics of people who suffer from a Painful Neuropathic Disorder (PND) as compared to people who don't have a PND
3. Researchers found that people with a PND have a significantly higher rate of other painful disorders, such as fibromyalgia
4. People with a PND have a significantly higher rate of other chronic conditions, such as heart disease
5. People with a PND incur 3 times the annual health care costs
6. Despite evidence that antiseizure and anitdepressant medicines can be effective in treating PND's, few patients were taking them

Definitions

causalgia - a constant, burning type pain

cerebellar tonsils - portion of the cerebellum located at the bottom, so named because of their shape

control group - in a study, a group of subjects who are used as a basis for comparison; the control group is usually healthy, or does not receive a treatment that the experimental group receives

diabetic neuropathy - nerve damage as a result of diabetes

dysesthesia - an unpleasant, or painful, response to a normal stimulus; for example pain from being touched lightly

hyperesthesia - abnormal sensitivity to stimulation

neuropathic - having to do with damage to a nerve

The High Cost Of Neuropathic Pain

A new study has shown that people with a Painful Neuropathic Disorder (PND), like many CM/SM patients have, are much more likely to suffer from other chronic pain conditions, other chronic diseases - such as heart disease, incur much higher annual medical costs, and may not be receiving the most effective medicines for their pain. A PND is any pain that is caused by nerve damage and usually manifests as abnormal sensations, or hypersensitivity, to normal stimuli, such as a light touch or even clothing. Neuropathic pain is usually chronic in nature and can be very debilitating.

Ariel Berger, from Policy Analysis Inc., and his colleagues, teamed with Pfizer, Inc. (a large drug manufacturer who funded the study), to examine the clinical characteristics and economic costs associated with PND's. They published their results in the April, 2004 issue of the Journal of Pain, which is published by the American Pain Society (www.ampainsoc.org).

In order to assess the impact of PND's, the researchers utilized the data in a large healthcare insurance claims database (the identity of the individual subjects was always protected). This database houses information on more than 3 million people, and from this, the researchers identified over 50,000 people who had been to the doctor at least twice in the year 2000 and suffered from a PND, such as back/neck pain due to neuropathy, diabetic neuropathy, post-herpetic neuralgia, etc. The researchers also created an age and gender matched control group - meaning the average age and male/female ratio was identical - of the same number of people who did not have a PND (see Figure 1).

The group wanted to look at how having a PND affected a person's overall health, the economic costs associated with a PND, and the types of drugs being taken to help with the pain. What they found was staggering.

The data revealed that people with a PND are much more likely to have other chronic conditions, such as headaches, other pain syndromes, heart disease, diabetes, etc. In fact, over 70% of the PND group also suffered from two or more other chronic conditions. This is in stark contrast to only 13% of the control group with two or more chronic conditions. At the other end, only 6% of the PND group did not have another chronic condition, whereas the majority (69%) of the control subjects had no other chronic disease.

As to be expected given it's impact on overall health, having a PND is very expensive as well. Subjects in the PND group incurred an average of over $17,000 in medical costs annually. In comparison, subjects in the control group only rang up an average of $5,700 in medical costs per year.

The researchers also found something interesting in looking at the types of drugs used by the PND subjects. By far, the most common drugs taken were simple NSAID's, with close to 40% of people using these types of drugs. In contrast, only 11% were using antiseizure drugs (such as Neurontin) or antidepressants. This despite the fact that research has shown that drugs like Neurontin and some antidepressants can have a significant impact on chronic pain. The authors point out that this data raises the question of whether these people are receiving best care possible.

The authors do admit to limitations of their study, especially with the drug data. The information in the database only registered drugs that were purchased at a pharmacy, so if people were getting samples from their doctors, it would not be factored in. Despite the limitations of the data, the results clearly show the high impact, both physically and economically, of neuropathic pain, and demonstrate once again the importance of seeking out specialized care early when it comes to dealing with pain.

Figure 1
Selected Characteristics of PND Subjects vs. Control Subjects

	PND	Control
# of subjects	55,686	55,686
Avg. age	57.8	57.8
% female	58.5	58.5
% with one PND	88.9	N/A
% with two PNDs	9.8	N/A
% w/ no other chronic disease	6.1	69
% w/ 1 other chronic disease	23.5	18.2
% w/ 2 or more other chronic diseases	70.4	12.8

NSAID - non-steroidal anti-inflammatory; class of pain relieving drugs which includes ibuprofen, naproxen (Alleve), and others

PND - painful neuropathic disorder; any painful disorder where the pain is caused by nerve damage; such as diabetic neuropathy or post-herpetic neuralgia

paresthesia - abnormal sensation, such as burning

post-herpetic neuralgia - painful nerve damage as a result of "shingles" (herpes zoster)

% taking antiseizure drugs	11.1	1.2
% taking antidepressants	11.3	2.4
% taking NSAIDs	39.7	13.8
Avg. annual healthcare costs in $	17,355	5,715

Source

Berger A, Dukes EM, Oster G., Clinical characteristics and economic costs of patients with painful neuropathic disorders. J Pain. 2004 Apr;5(3):143-9.