Painkiller patch creates addiction

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Morphine patches are supposed to reduce use of painkillers, and provide more control over their use in chronic pain conditions. But researchers at the Norwegian University of Science and Technology (NTNU) and St. Olavs Hospital in Trondheim have found otherwise.

The sales of new morphine patches have grown explosively in Norway since they were first introduced to the market in 2005. But researchers at NTNU and St. Olavs Hospital have found this development worrying, because their research shows that these types of plasters are often used incorrectly, or based on the wrong assumptions. The consequences can create drug dependency problems.

“The reason for this incorrect usage is that there is not enough information out there, and a lack of expertise in individuals who are writing prescriptions,” says Professor Petter Borchgrevink, head of the Norwegian National Centre for Complex Disorders.

Should reduce the risk

The patch works in the same manner as a nicotine patch, with the clear difference that a nicotine patch is used to reduce the craving for cigarettes, while a morphine patch is used to reduce pain. But both provide small, steady doses of their active ingredients over a longer time period.

This method of medication is best for patients who need low doses of pain-relieving medicine. In a perfect world, it makes sense: the

medication could be more controlled, drug consumption could be reduced, and the risk of dependence should therefore be less.

Now it turns out that incorrect use of the patches can make problems worse, so that the effect is the opposite of what was intended.

An addition, not a substitute

The patch came onto the Norwegian market in 2005. It was the first morphine-like drug marketed for chronic pain that is not caused by cancer. But the danger of misuse was great, and Borchgrevink and Professor Stein Kaasa at NTNU decided to follow up on whether the patches were being used correctly.

The pair started a research project in cooperation with the Norwegian Institute of Public Health. Now the conclusions are clear: Instead of being substituted for another habit-forming medication, the morphine patches were often being given in addition to other drugs.

“This increases the health burden and the risk of addiction, "says Borchgrevink.

He adds that this is especially true for a large group of chronic pain patients that did not use morphine-based medications before given the patch.

Substance abuse a major risk

“For some patients, it would be appropriate to give morphine-like drugs for strong chronic pain”, says Kaasa, who is a specialist in pain relief medicine and director of NTNU’s research group on cancer and palliation.

“The big challenge is to avoid backsliding when it comes to medical indications for the use of the drug; in other words, we don’t want the drug to be given to patients who do not need it. Experience from other countries, including Denmark, shows that the large consumption of morphine and similar drugs by people with chronic pain that is not caused by cancer can provide significant problems with addiction.”

For these patients the use of the patch can amount to substance abuse, and many end up with major addiction problems. Patients who use multiple addictive medications at the same time are particularly vulnerable, Kaasa says.

Significance for other countries

The study was conducted in connection with the Prescription Registry, which was created by the Norwegian Institute of Public Health in 2004. The researchers wanted to find out which patients were being given prescriptions for the patches, and how many got them. They also wanted to know what other kinds addictive medications the patients were using in addition to the patch.

Professor Svetlana Skurtveit at the Institute of Public Health said that half of all patients were given more than one prescription. More than 90 per cent had used morphine-based medicines before. More than 60 per cent continued to use other drugs in addition to the patch, including morphine preparations and other types of addictive medicines.

“In the course of a year, sales doubled, and they continue to skyrocket”, Skurtveit says.

The study was published internationally and has received considerable attention. “Our findings may have special significance for countries that don’t yet have a morphine patch on the market”, says Skurtveit.

Source: Norwegian University of Science and Technology