Klinikum Nürnberg

Burns medicine – a new enzyme from pineapples works wonders

April 08, 2014 Bernad Siegler

"It's the biggest breakthrough in burns medicine of the past ten years." Prof. Bert Reichert, Medical Director of the Clinic for Plastic and Cosmetic Surgery, Severe Burns Casualty Centre at Nuremberg Hospital South, almost waxes lyrical when the conversation comes around to the topic of the enzyme bromelain.

This enzyme is extracted from the stems of pineapples and removes the tissue destroyed by heat in deep burns without damaging any healthy tissue. "This is absolutely crucial for fast and scar-free healing and will save us numerous operations in the future," emphasizes Reichert.

The medicine, NexoBrid, which is based on the enzyme bromelain, has been licensed in Europe since the beginning of the year. The senior physicians Dr. Reiner Sievers and Dr. Tobias Jaehn from the team of plastic surgeons at the Severe Burns Casualty Centre in the hospital are amongst the first to use the new method on second degree burns, in other words for deeper burns wounds with blistering.



The gel containing the enzyme is applied to the areas of skin affected by the burns. The affected region is then wrapped water- and air-tight for four hours. The destroyed tissue can then be peeled off with no problems, exposing the vital tissue. The wound can now be left to heal on its own or, in the case of large-area burns, after skin transplantation.

"The enzyme works very precisely," says Reichert, "only removing the damaged tissue but no more than is absolutely necessary." The tissue damaged by the heat used to have to be peeled off, whereby it was unavoidable that healthy tissue was also removed. This meant a longer healing process or the necessity of skin transplantation. The Medical Director is confident of one thing: "Thanks to this enzyme treatment, less skin will have to be transplanted in the future."

As the President of the Deutsche Gesellschaft für Verbrennungsmedizin (German Association of Burns Medicine), Reichert also put this new method onto the agenda of the 9th Nuremberg Spring Symposium on Burns Medicine at the end of March in Nuremberg Hospital South. After all, it should be known to and discussed by all burns specialists in Germany. He was able to convince the Israeli doctor, Lior Rosenberg, to attend the symposium. Rosenberg is the Professor for Plastic Surgery at the famous Soroka University Medical Center in Be'er Sheva. Rosenberg is regarded as the "pope" of burns medicine in Israel. He was the first to carry out research into the pineapple enzyme bromelain in the 1990s and his studies help pave the way for the recent approval of the medicine NexoBrid in Europe too.

Find out more on the website of the Clinic for Plastic and Cosmetic Surgery, Severe Burns Casualty Centre.

http://www.klinikumnuernberg.de/DE/ueber-uns/Fachabteilungen-KN/kliniken/plastische/index.html