

# Flesh-eating bacteria stopped in their tracks

Scientists discover that leukaemia drug can help slow spread of infection

By DAVID EE

IT SEEMS like the stuff of horror movies but is all too real – “flesh-eating” bacteria that indiscriminately destroy body parts and leave victims maimed or dead.

Five in a million people get infected a year and face a 25 per cent chance of death.

But Singapore and Israeli scientists believe they have found a way to stop these vicious infections caused by the *Streptococcus* bacteria.

A team from the National University of Singapore (NUS) and The Hebrew University of Jerusalem have found that a widely used leukaemia drug called Asparaginase can prevent the flesh-eating bacteria from spreading rapidly in human blood.

This discovery could offer doctors another life-saving option.

At present, they can turn only to high doses of antibiotics to stop the infection. If that measure

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## MAKING HEADWAY

It's one step closer to fighting the disease.

– NUS research fellow Catherine Cheng, on how the finding could offer a new option for treating patients infected with flesh-eating bacteria

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A patient whose right calf was infected with necrotising fasciitis after he suffered a scrape. To save the leg, skin was grafted from his left thigh. TNP FILE PHOTO

fails, they have to surgically remove dead tissue or even amputate limbs. This procedure often leaves survivors of the rare infection, known as necrotising fasciitis, extremely disfigured.

“It's one step closer to fighting the disease,” said NUS research fellow Catherine Cheng.

The bonus, she added, is that Asparaginase is on the list of drugs approved by the United States Food and Drug Administration (FDA).

Thus, there might be less red tape involved in getting the drug accepted as a treatment option, she explained.

The scientists have filed a provisional patent, and are looking for partners in the pharmaceutical industry to refine the drug.

Their work, which was published today in leading scientific journal *Cell*, began in 2011 as part of a joint programme between the two universities.

It is being funded by the National Research Foundation, a department within the Prime Minister's Office, to improve the understanding of inflammatory diseases, a field considered to be under-researched.

Dr Cheng said the bacteria that cause the horrific disease are actually quite common, living benignly on the skin and in the throats of about 20 to 30 per cent of the human population.

In the vast majority of cases, they cause only sore throats or skin infections. However, people with a weak immune system or open wounds could develop a more severe infection.

Such cases are rare, but Dr Cheng advises people to clean wounds and treat infections promptly to reduce the chances of the bacteria festering.

Changi General Hospital recorded 89 cases of flesh-eating bacteria infections in Singapore from 1997 to 2002.

Dr Tan Ter Chyan from Hand Surgery Associates, at the Mount Elizabeth Novena Specialist Centre, hopes clinical trials will be conducted to assess how quickly the leukaemia drug can act against the spread of the flesh-eating bacteria, as sufferers often have only hours before they lose limbs or succumb to the infection.

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