

Hello I'm Kim Thomas and I'm here in the Centre of Evidence Based Dermatology at the University of Nottingham interviewing Professor Hywel Williams who is the Chief Investigator for a national trial on the prevention of cellulitis funded by a medical charity called Action Medical Research.

So, tell me Professor Williams, what is cellulitis?

Well, cellulitis is a bacterial skin infection. It's quite a common infection and it affects different parts of the body including the lower leg. The upper layers of the skin are involved and it's typically caused by a bacterium called 'streptococcus'.



Kim Thomas talks to Professor Williams about the PATCH trial.

Why did you do this particular study?

Well the thing about cellulitis is that it's very painful and debilitating and it causes leg swelling. It's relatively straightforward to treat. But the big problem with cellulitis is that it tends to come back, particularly in the same leg which has been affected before and these recurrences are quite common. So we wanted to find out could we prevent cellulitis coming back.

So how might you prevent cellulitis from coming back?

There are a number of ways. The first thing is to try and prevent the bug from getting back into the skin again so, for example, little cracks between the toes from athletes foot or cracks on the sole of the foot need to be treated. We can also try to reduce the swelling of the leg which predisposes to infection. But we were particularly interested to find out whether a low dose of antibiotics taken after the cellulitis has cleared up, penicillin in particular, could prevent these recurrences. Some Doctors prescribe low dose antibiotics for people with recurrent cellulitis and but others don't. In other words, we are not certain whether low dose antibiotics can prevent recurrences.

So what exactly did you do in this trial?

We invited over 200 people to help answer the question on whether low dose penicillin could prevent cellulitis recurrences. We divided them into 2 groups by chance alone, so patients were randomly given either active penicillin, which was just plain penV 250mg taken twice a day for 12 months, or a dummy tablet (or 'placebo') that looked very similar to the penicillin for 12 months just like the penicillin group. Then we followed up all the patients for up to 3 years after they stopped taking the tablets.

And what did you find out in this trial?

We were pleased to show that the penicillin does actually prevent recurrences. We found that recurrences were very common in these patients who have had 2 or more recurrences of cellulitis in the past. Patients people taking the penicillin had a much lower number of recurrences; 22% in those taking penicillin compared with 37% in the placebo group. What we found, however, was that the penicillin only worked during the 12 month period it was being taken, and after it was stopped recurrences seemed to be about the same in both groups.

So what is the bottom line for patients with cellulitis?

I think this is good news for people with recurrent cellulitis. For the first time ever we have got a high quality study on prevention of cellulitis. Cellulitis has been understudied in the past because it doesn't seem to belong to any particular specialty. This is the biggest trial of its' kind that has ever been done and what it has quite clearly shown is that low dose penicillin can prevent recurrences of cellulitis. What we don't know of course is how long we should keep that penicillin going for and whether we need to increase the dose for people who have a lot of leg swelling or much heavier people. But, for the first time ever, the evidence base on this topic means that patients and doctors can make a more informed decision about the management and prevention of leg cellulitis recurrences.

Thank you very much, that was very informative Professor Williams.