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Flesh-Eating Disease

An experience of necrotizing fasciitis

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مرض أكل اللحم
تجربة الْتِهابُ اللِّفافَة الناخر

ماري لو ليب

Editor's Note: *Narrative medicine is an increasingly powerful tool to illustrate the role and behaviour of a sick patient. This emphasis complements the modern patient-centered approach and sheds light on patients' conceptions of their illnesses. The present narration is written by a patient, who initially thought she had suffered a benign insect bite, but which was eventually diagnosed as debilitating necrotising fasciitis and treated accordingly at the Sultan Qaboos University Hospital.*

DAY 1

On the morning of our departure from Mozambique, where we had been working as volunteers in an orphanage for 2½ weeks, we took one final stroll down the beach. I noticed an itchy spot on the top of my left foot that was looking a bit swollen. Soon, my foot was really bothering me and I could hardly bear to wear my sandals. By the time we boarded our plane a few hours later, I was getting more and more uncomfortable. We flew from Mozambique to Dar Es Salaam, Tanzania and then, because of my foot, flew straight on to Dubai. By now it was so sore I couldn't keep any kind of shoe on.

DAY 2

After the night in Dubai, my foot was so very swollen and painful. At this time I didn't know what was causing the swelling, but guessed it must be some sort of insect bite, but not a mosquito. I was beginning to feel various malaria symptoms and was getting a bit worried since we'd just been in a malaria infested country although we'd faithfully taken our medications. That evening we had tickets for the renowned Cirque du Soleil, but even after a salt bath and disinfectant, my foot was in pain and very swollen. As we settled into the big circus tent I was all shivers and sweat.

DAY 3

We found an American doctor staying in the same guest house. He closely examined the foot and noticed that the area of the bite had not only a broken bubble with liquid seeping out, but some of the surface skin was loose and needed debriding. He figured it was most likely a spider bite saying that this could get quite large and, worst case scenario, I could end up needing a skin graft. He gave us a list of antibiotics and suggested I started them right away. The 4½ hour drive to Muscat, Oman that day was a blur as I was feverish and sore all over. On arrival at home, we called a doctor friend, who on hearing the description of my situation strongly advised going to emergency at the hospital. I was reluctant to go after the long journey, only wanting to take capsules and go to bed. However, we went to a private hospital in the city instead of the university hospital close to our home, as usually there is a long wait there.

The doctor on duty was new to Oman and upon hearing about a spider bite admitted she wasn't familiar with tropical insect bites. Without actually examining the wound, she asked the nurse to take a swab,

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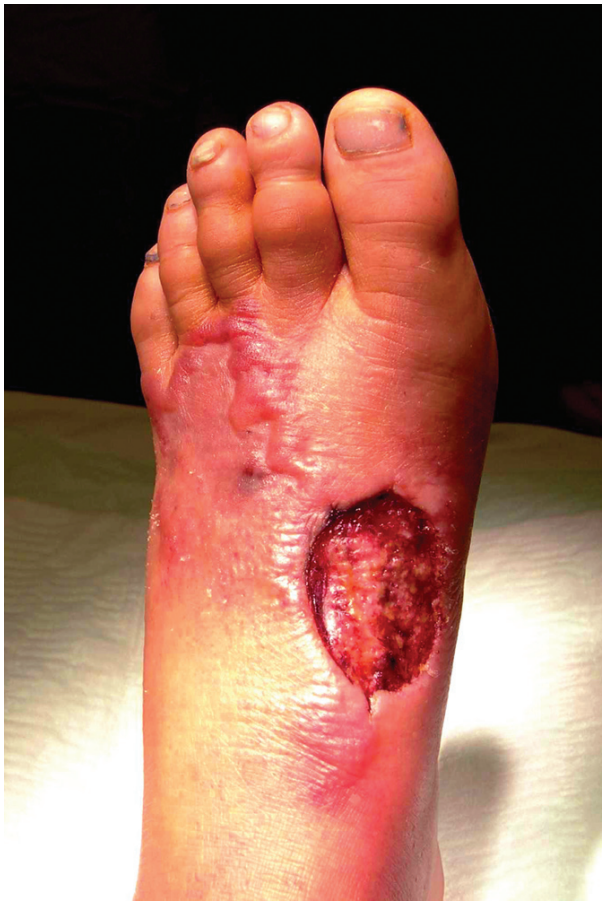

Figure 1: ***Ulcer after the initial derbridement showing, spreading of the infection as evidenced by erythema, oedema and blebs***

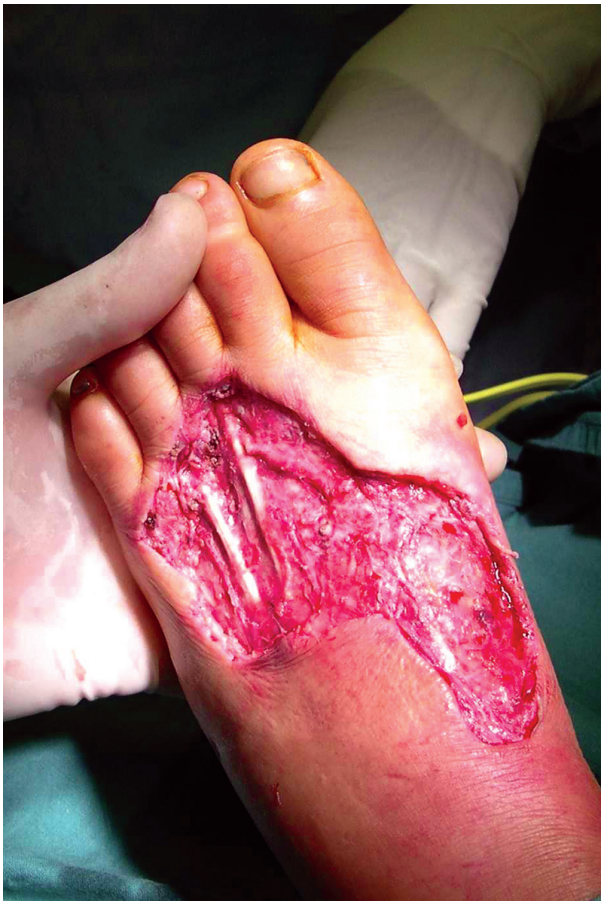

Figure 2: ***: Result after the second debridement. Too little debridement would leave behind the infected tissue and too much would damage the tendons and the delicate nerves and blood vessels to the toes***

take a blood sample to check for malaria and give me a tetanus shot. Since the size of the infected area had increased rapidly in size over the last day, I was hoping the doctor would admit me for observation. However, she rented us a pair of crutches and sent me home disappointed as I was in so much pain.

When I removed the bandage in the morning I was horrified at what I saw. The infected area was not only much larger than the night before, it had also turned an ugly purplish-black colour. Our doctor friend rushed over to have a look. His immediately said, "We're going to the hospital and you'll be admitted." This time we went to the university hospital close to our home. As soon as we arrived, the doctor was telling the attendants we had a serious situation on our hands and before we knew it he had a whole team of people scurrying around. They took me for an X-ray, and within a short time I was in the operating theatre. He had recognised it as gangrene and was suspicious of it being gaseous. While I was in the recovery room, I was feeling very nauseous and had pain beyond words so the attendant was quick to give me some morphine.

DAYS 4 & 5

When the dressing was removed in the morning, I gasped at the huge hole in my foot as a result of the debridement. But what was even more frightening was the colour of the skin beside the wound. In less than 48 hours it had turned from some red patches to a dark purple. By the next day, I was in the operating theatre again. Apparently the debridement had been too conservative and the adjacent area also had to be removed. The infectious disease specialist also had information for my husband. I overheard that the survival rates for necrotising fasciitis were scary so that this was indeed a serious situation. Intravenous tubes were attached to both arms pumping heavy doses of antibiotics and penicillin into my body in an all out effort to stop further spreading of the disease. During this time, we were extremely worried, hearing of numerous cases in America and Europe of people who

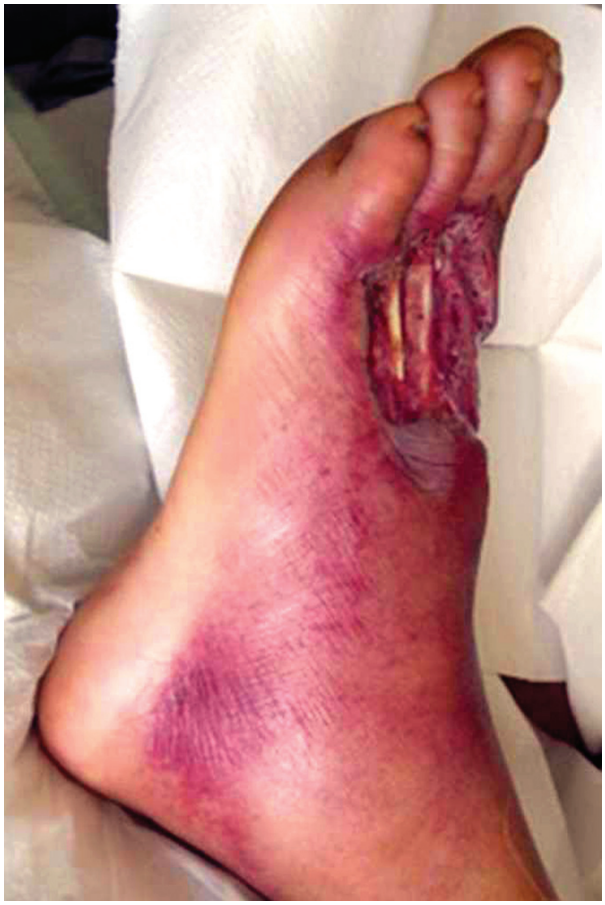

Figure 3: ***Further extension of the infection evidenced by discoloration of the skin of the whole foot. Judicious use of the right antibiotics combinations in the right dose contained its spread***

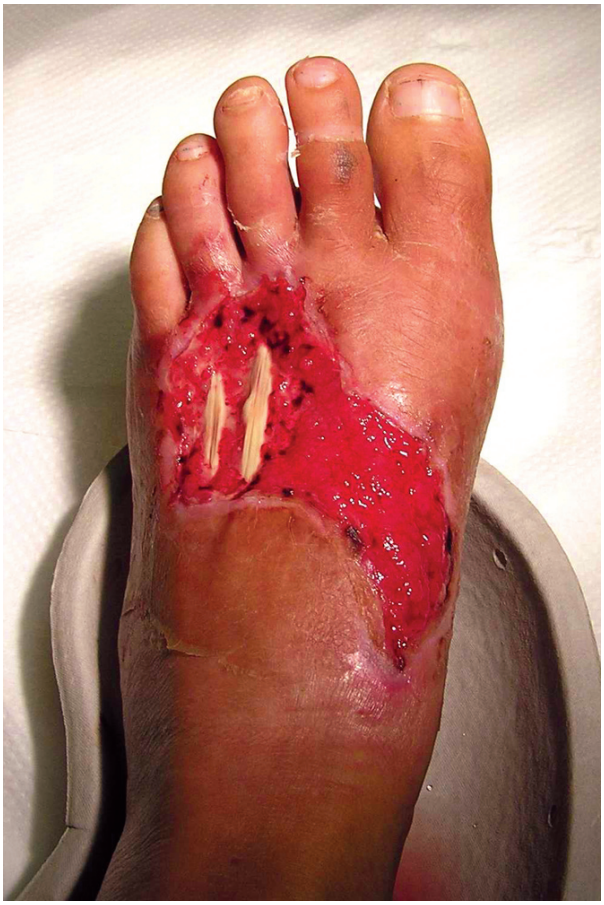

Figure 4: ***Wound bed prepared for skin grafting. Healthy granulation tissue seen as a result of VAC (Vacuum Assisted Closure) system, an advanced wound healing device***

had either died or lost body parts to this killer.

weeks 2-4

The following days there was a steady stream of doctors and students filing through during dressing changes with photos taken for teaching purposes. It seemed that the dark coloration along the left side of my foot would also have to be debrided if the antibiotics did not arrest the bacteria in time. After a few days it was a huge relief to see that the dark red areas were no longer turning purple - the bacteria had been stopped! Now that the scare was over and I was beginning to recover, I realised that all the flesh that had been removed was going to have to granulate to fill in the spaces. Of particular concern in the weeks that followed were the two tendons that were scraped bare during the surgery.

weeks 4-8

Eventually, I was admitted to a different hospital that had a plastic surgery ward - the only one in the country. But before the skin graft could be done I had to have a vacuum pump bandage put on my foot to speed up the granulation process around the tendons. The pump completely restricted me to the bed, but fortunately the applicator was changed every 48 hours at which time I could leave the hospital for a few hours.

Finally, the foot was ready for the graft. A rather large piece of skin was taken from my thigh, but I was told part of it was kept in the freezer in case it was needed later. It had a shelf life of 21 days. All in all I spent more than 4 weeks there. The graft was fully successful and I was soon on my way home slowly to resume a more or less normal life.

CONCLUSION

I had to be very careful not to put full body weight on the foot for the next 2-3 months which was very difficult. However, I am so grateful for all the medical staff who served me with great competence and care. While I was still in the hospital someone asked me if I

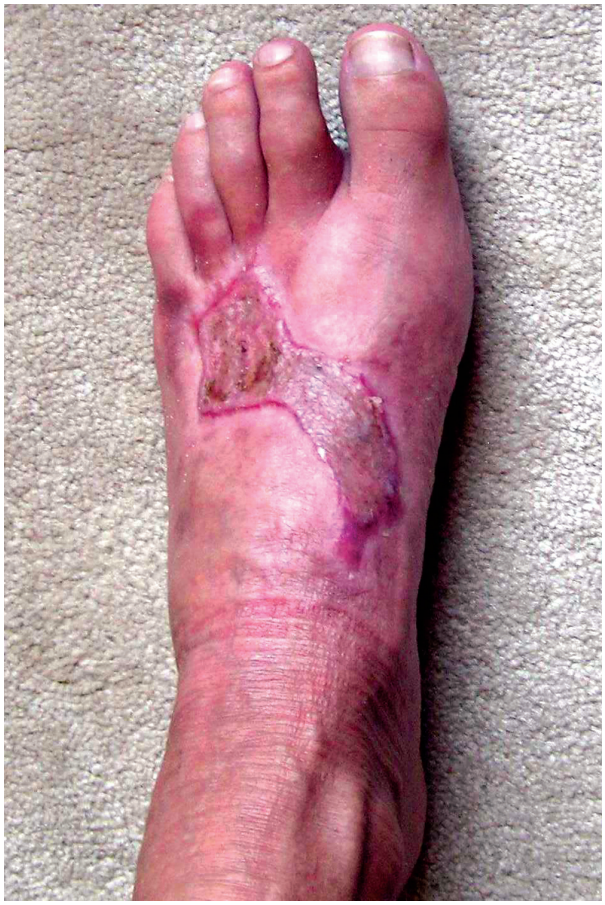

Figure 5: ***Successful take of partial thickness skin graft***

wouldn't rather have been in a Canadian hospital and my response was, "Why? The medical help in Oman was excellent"

ACKNOWLEDGMENT

Thanks are due to Dr. Pradeep Kumar, Department of Surgery, Sultan Qaboos University for his medical input to this article.

Medical Footnote

The drugs used to treat the infection were: Clindamycin, Metronizadole and high doses of Benzylpenicillin