

whole area dries up into an innocuous lump containing dead organisms in its interior, or the abscess bursts internally, sometimes with disastrous results.

Whatever the situation of the germs may be, the results of the absorption of toxins are the same, and we will now consider these more carefully. At first we get the general signs of fever, with headache and delirium, and more or less prostration according to the severity of the case. This condition is known as *sapraemia*, and is due to the absorption of toxins alone from the site of the lesion, or our battlefield, as we have called it.

Sometimes, however, the process goes further than this, and we get the germs themselves breaking bounds and gaining access to the blood stream, where they can manufacture toxins more easily: this is known as *septicaemia*. A further stage is when the germs are not only in the blood stream, but have been also deposited from the blood in various parts of the body, away from the original lesion, the result being that, wherever they are so deposited, abscesses are formed. This is called *pyaemia*.

It is, however, most important to remember that these are differences in degree only, and not in kind; in other words, that a case of *sapraemia* becomes, firstly, *septicaemic*, and (if the patient live so long) then *pyaemic*, if it is not properly treated, or if the treatment, though correctly applied, proves ineffectual. So I give you these names with some diffidence. I do not want you to think of them as anything else but degrees of systemic poison from the effects of the introduction of germs into a wound.

Now, we will turn to the treatment, and we will apply again the general principles I have already given you. Can we take the germs away? Not always, unfortunately, but we can try to do so. Sometimes we can remove the entire lesion, germs, protecting leucocytes, and all. A good example of this is seen in the operation for anthrax. Some of you have seen a man now in hospital, who came in with a curious looking sore on his chin, which was due, as a matter of fact, to infection of a scratch with the bacillus of anthrax, or, as it is sometimes called, malignant pustule, or wool-sorters' disease. That sore I cut out altogether, and the patient is now quite well. More often, we cannot, or need not, remove the whole part, but content ourselves with scraping away the diseased area, and this we do for instance, to a foul ulcer of the leg. Or we may just lay the part freely open, and wash away the organisms with sterile water.

Sometimes we cannot do this with sufficient

thoroughness, and we have to kill the germs as they lie. For this purpose we sometimes rub the affected parts well with undiluted *izal* or other strong disinfectant. If there is an obvious abscess, we open it to let the matter out, and sometimes—not always—wipe out its cavity with *izal* as well, thus combining the two methods. In cellulitis, we make free incisions, whether we think there is an abscess or not.

But this is merely turning off the tap, so to speak. We prevent the further manufacture of toxins, but we do nothing to those already formed. At this point, in fact, our methods somewhat break down. We have no drug, no anti-toxin, that will neutralise the toxins of wound infection when they have been formed. We give anti-streptococci serum, it is true, but this is not—like anti-diphtheritic serum—a true anti-toxin; it merely retards the activity of the germs themselves, and does not always do that.

So we are driven to our last resort, namely, to keep up the patient's strength, and endeavour to feed his leucocytes, so that they may fight as vigorously as possible. Fortunately, we can do this more easily in wound infection than in some other diseases. You will notice that patients in the erysipelas ward are often fed on solid food, and plenty of it, while their temperatures are high, and, what is more important, they like this diet, and are hungry. In olden days, such patients were starved, often with disastrous results. When once a patient becomes *pyaemic*, it is necessary for the nurse to keep a sharp look out for fresh abscesses, as these usually form quite painlessly, and soon attain a large size. Bedsores are, unfortunately, very common, and, in practice, cases of wound infection often tax the patience and skill of the nurse very severely. Yet it is surprising how often they recover when once least expects it, so it does not do to regard any such patient as hopeless, and allow him to "die in peace." We must persevere with vigorous disinfection and frequent incisions to the very end. Remember, as I have so frequently told you, that the surgery of this, as of many other diseases, depends not only on what operation the surgeon performs, but on what observation of the case the nurse supplies him with. The nurse is constantly with the patient; the surgeon is not.

---

The Queen has consented to open the new out-patient department at the Hospital for Sick Children, Great Ormond Street, W.C., in June. The department has been built by Mr. W. Astor as a memorial to his late daughter.

[previous page](#)

[next page](#)