organisms from without, and we can classify the various forms of this infection. The most serious form is septicæmia, or general septic infection. In this disease micro-organisms (usually streptococci) are present not only in the local wounds, the placental site, but also in the general circulation, and the patient has high fever, rigors, vomiting, and diarrhœa. Sapræmia is somewhat less dangerous, but if severe is often fatal. It is a state of septic intoxication, caused by the absorption into the system of toxins produced by micro-organisms present in the uterus or vagina. The organisms live and increase on decomposed material—*e.g.*, a piece of placenta, or membrane, which has been retained—or in the slough of a vaginal tear, the tissue of which has become rotten and pus-bearing.

By clearing away these products of decomposition and keeping the passage, or uterus, clean, by suitable antiseptic douches, the symptoms generally abate.

Pyæmia arises from micro-organisms, usually streptococci, spreading from the uterus into the general circulation, and the localisation of these microbes in abscesses occurring on various parts of the body. Watson Cheyne describes the usual course of pyæmic infection as starting with (*a*) phlebitis; (*b*) a thrombus, or clot, impregnated with septic organisms, becomes formed in the vein; (*c*) this softens and breaks down, with the result that particles, or emboli, are carried to distant parts; (*d*) these lodge in the capillaries, with the result that abscesses are formed. Should one of these emboli be carried by the blood-stream into the pulmonary circulation, sudden death from asphyxia almost invariably results. Hence the danger of allowing a patient with phlebitis to move about, and thereby risk dislodging the clot before it has become absorbed.

We see, then, that inflammation and suppuration are preventable conditions to a certain extent. A surgical wound should never become inflamed, and there should be no septic post-partum fever in a normal patient. In patients suffering from severe gonorrhœa, septicæmia is always liable to arise after parturition, but these are exceptional cases.

Where, then, do we find these micro-organisms which are always ready to gain entrance to wounds? They are literally *everywhere!* On our skin, on our sheets and bedding, floating as dust in the air, sticking to the feet of flies and other insects, in dust, and in unprotected or impure food, &c.

An invading army always waiting to break down our defences and take possession of our citadel! But fortunately the animal body has also been provided with an army to protect the animal against these persistent invaders. In the blood of a healthy normal person are found erythrocytes, or red cells, and leucocytes, or white cells.

For our present purpose we can ignore the red cells (though they are the producers of anti-bodies which help to neutralise the invading microbes), but the white cells play a conspicuous part in the conflict by actually demolishing the micro-organisms! The leucocytes which act in this manner are known as phagocytes, and the process is called phagocytosis. The leucocytes congregate at the spot where the invading micro-organisms have entered and settled, and surround the invaders, which they ingest and destroy. This is what happens in a healthy person, but if the patient is weak, or if her power of resistance to infection is low—*e.g.*, as in childbirth—these leucocytes become weak, and will be easily overpowered by the invading germs. Suppuration, and probably general sepsis, will result. Before the days of Pasteur, Lister, and Metchnikoff, these facts were not understood, and terrible gangrenes, erysipelas, and other septic diseases devastated our sick rooms and hospitals.

Now we do our best to prevent any micro-organisms entering our wounds, and the way in which we do this is to treat our cases aseptically and antiseptically.

Asepsis=without poison, from the Greek particle *a*=without, and *sepsis*=poison.

Antisepsis=against poison.

In a surgical case, we sterilise all the instruments, by boiling when possible; otherwise, as in the case of scalpels or delicate cutting instruments, we immerse them in an efficient disinfectant. The operating table is cleaned with disinfectant, and covered with sterile coverings and waterproofs. The surgeon and nurse wear sterilised caps, gowns, shoes, and boiled rubber gloves. The skin of the patient is rendered as nearly sterile as possible, and all parts except the operation area are covered with sterile towels, &c. Dressings and lotions are, of course, sterile also. In this way a wound is kept practically free from contamination from without. In a midwifery case the patient should be treated as far as possible as a surgical case, and strict asepsis pursued. Silence, as far as practical, should be a rule during all operations, particularly if no mask is worn.

Antiseptics are used as dressings, douches, applications, &c. They hinder the growth of germs, but do *not* kill them. Certain antiseptics may be used in such strength that they kill germs—are disinfectants, in fact. A solu-

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