

spontaneous hæmorrhages, the ecchymoses and the joint affections.

The tendency to traumatic hæmorrhages does not invariably exist even in those suffering from the first, and as above stated is unusual in the second and third degrees of intensity, and is rarely met with in women.

When it does exist, the liability may vary in the same person at different times; so that at one time a wound may not bleed more than natural, while at another time a similar wound may bleed profusely.

Some families are also much more liable to it than others: in one the lancet may be used or a tooth extracted without danger, but in another the least touch of a knife or the application of a blister, may entail death from uncontrollable hæmorrhage; two deaths are said to have occurred from the latter cause. Fatal hæmorrhage has followed such simple operations as snipping the frenum linguæ, scarification of the gums, and of the arm for vaccination, leech bites and the extraction of a tooth; the latter is frequently followed by exceedingly dangerous bleeding; but the most profuse bleeding is said to follow when a hæmatoma has been laid open.

These bleeding wounds generally take a long time to heal, often suppurate and sometimes slough. After suppuration the bleeding usually ceases, but may return at any time even after the wound has apparently healed.

Although I have mentioned that death has resulted from hæmorrhage after vaccination, the danger to be apprehended is slight; in only two cases was it followed by alarming bleeding, one of them fatally so. In all cases where this point is noticed it is stated the vaccination was successful, the vesicle running its normal course even when the bleeding was excessive. It has been suggested that the inoculation of a small bleeding wound might tend to arrest the hæmorrhage.

Occasionally the bleeding does not come on until some hours or days after the infliction of the wound.

Spontaneous hæmorrhages are sometimes ushered in by premonitory symptoms, the "Molimen Hæmorrhagicum" of the old writers, lasting three or four days, and frequently there are indications which point to the part which is about to be affected, as pain in the loins before hæmaturia, itching in the nose before epistaxis.

The hæmorrhage is commonly from the mucous membranes, sometimes from the skin, and rarely from the serous membranes or within the cranium.

Age has a good deal to do in determining the surface from which the blood shall come: in child-

hood from the mucous membranes of the nose and mouth, after puberty from that of the lungs, in adult life from the urinary organs, intestines and rectum. When the bleeding has once set in, it may be continuous, intermittent, or cease and reappear from some other part, or may alternate with swelling of the joints.

A rapid flow of blood, whether traumatic or spontaneous, by inducing syncope and cessation of the flow, is not so dangerous as a prolonged recurring smaller bleeding; either leave the patient in an extreme anæmic and prostrated condition, the blood becoming thin and watery, loses its power of coagulating, and is said to resemble colored serum, or water in which raw meat has been washed.

In favourable cases the patient becomes unconscious, the bleeding then ceases, and he falls into a deep sleep which may last for several days—months may elapse before he regains his strength; convalescence being as a rule slow.

Unless an artery happens to be cut or ruptured, the bleeding is always capillary, the blood as it were leaking or oozing forth as if pressed from a sponge, there being no apparent disposition to restrain the flow by contraction of the vessels.

The interstitial hæmorrhages, comprising ecchymoses and petechiæ, present the same appearance, and go through the same changes of colour as those the result of bruises; they may be either traumatic or spontaneous.

Spontaneous ecchymoses are sometimes ushered in by the usual premonitory symptoms of hæmorrhage; they usually take place into the subcutaneous cellular tissue. These ecchymoses are not always present, and on the other hand are sometimes the only indication of the disease; they may alternate with external bleedings or joint affections, or may be the forerunner of hæmorrhages. They vary in size from minute spots to places as large as a cent.

The traumatic ecchymoses are induced by injuries which would produce little or no effect in ordinary constitutions. There is almost no limit to their extent the amount of blood extravasated may be so large as to cause death. Sir Wm. Jenner mentions a case in which the fall of an India rubber air ball upon the thigh caused the connective tissue of the limb to be filled with blood from the knee to the trochanters.

The joint affections are frequently a marked feature in this disease, comparatively few bleeders escape without some articular complication; in some families no individual who exhibits the diathesis escapes. So much is this the case that a hereditary liability to