

motion is often found also in the lower lids. Where the protrusion of the globes is not well pronounced or symmetrical on both sides, this lack of motion of the lids is a valuable symptom with regard to the diagnosis. The movements of the eyeballs themselves are often restricted in all directions and a slight degree of divergent strabismus is not unfrequent. If the protrusion of the eyeball is so excessive, that the eyelids no longer cover the cornea (especially during sleep), ulceration of the latter is apt to occur, the result of which may of course greatly diminish the patient's sight, or even as in some unfortunate cases lead to perfect destruction of one or both eyeballs. The pupils are mostly of normal size and reaction, and but seldom found to be dilated. The retinal arteries are in many cases enlarged, as broad as the veins. Arterial pulsation in the retina has also been observed in this disease (O. Becker.) Furthermore the patients suffer often from pain in the orbit, the ophthalmic branch of the fifth pair, and in the occipital nerve.

Although these symptoms of the heart, thyroid glands and eyes are the chief symptoms of the disease, a number of others are seldom wanting. The palpitation of the heart may cause a feeling of pressure upon the chest, and dyspnoea, which may sometimes be aggravated into a real orthopnoea and angina pectoris. The digestion is nearly always impaired, and vomiting is frequently observed; in a few cases only the patients, are on the contrary, troubled by an excessive appetite. The patients are frequently very anæmic and become utterly exhausted. This exhaustion is often followed by hydropic symptoms in the lower limbs. In female patients, who as we will see, constitute the majority of subjects of this disease, there is most always, if not always, some deformity or disease of the sexual organs to be found, and the menses are irregular or wanting entirely. Headache and sleeplessness are seldom missing and the patients are frequently very excited and nervous. They are thus rendered unable to do any work, and become either utterly depressed in spirits or so desperately gay, that they seem, and may become really insane, at least, the latter result has been reported in one case.

The disease is seldom acute, its development mostly lasts several years. The three chief symptoms come on as a rule in the following succession :

(1) palpitation of the heart, (2) struma, and (3) exophthalmus. In some cases the three chief symptoms are not well pronounced, when the disease is at the acme; sometimes one of them disappears after all have been developed, and this is mostly the case with the struma. Temporary improvements are frequently observed.

The diagnosis of Basedow's disease is not difficult, as soon as two of the three chief symptoms are well developed. With regard to the lack of motion in the upper eyelids, combined with the exophthalmus, I may mention here, that it is pathognomonic of this disease, and not found in any case of exophthalmus from any other cause. Basedow's disease is seldom fatal. When it is observed to be so, the patients die from hydropic symptoms, sometimes causing gangrenous inflammation of the lower limbs. Hemorrhage in the brain, softening of the brain and meningitis have also been observed. In most cases however, other diseases were present, and the question remained, whether death resulted from these, or from Basedow's disease. On the other hand lasting improvement and entire cure of the affection, have been seen only in about 25 per cent. of the cases, according to Von Dusch. The prognosis *ad vitam* is therefore not a bad one; it depends, however, greatly upon the general condition of the patient and the degree of marasmus he is found in, when first seen by the physician. In women, the return, or beginning of menstruation is a favorable symptom. The prognosis is, however, less favorable in male than in female patients. Why it is so is not known. Perhaps the age of the patient may have some bearing upon this point, since the disease attacks man, later than women. According to recent statistics one out of every 12 patients is a male, *i.e.* $8\frac{1}{3}\%$ of all the cases.

With regard to the etiology, we know very little. The disease is often preceded by some other acute or chronic disease, or by a great loss of blood or by over exertion. It seems to be beyond doubt, that in women the disease is dependent upon some trouble in the sexual apparatus. Whether this is so in men, is not so certain. Forster recently reported a case, where a disease of the sexual organs was existing. The case was that of a young man, 21 years of age, in whom Basedow's disease came on a short time after the patient had been fighting with a woman for half an hour, in

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