

remedies. But all this case teaches is, that under such circumstances we should not absolutely despair, as we may exceptionally succeed, even after inflammation has been set up; but the true manner of regarding enucleation is to view it as a prophylactic, the opportunity for employing which has already passed away when the earliest morbid phenomena have appeared. "Enucleation, in fact, becomes urgent in any case in which an eye injured by a foreign body that induces inflammation and destroys all perception of light, remains after the loss of its functions hard to the touch and spontaneously painful—almost certain signs that the vulnerant body remains within the injured organ. Moreover, it should be practised whenever an eye, whether injured or not, lost to vision, becomes a source of annoyance to its owner by remaining the seat of continuous or intermitting pains of a certain intensity. Not only may we in this way prevent sympathetic ophthalmia, which may take its point of departure from these pains, but we restore to the patient a peace and repose of which he has been sometimes deprived for several years." As to the partial ablation of the organ, which has been recommended as a substitute for enucleation, as affording more facility for the adaptation of an artificial eye, not only is its prophylactic efficacy unestablished, but it too often gives rise to very painful suppurative inflammation. Even after enucleation, too, the divided muscles, retracted though they be, will usually impart a considerable amount of movement. "To sum up: this is the sole method which indubitably secures the patient from sympathetic ophthalmia, and of all the operations which have been proposed to this end it is the most certain, the most easy, and the least dangerous in its consequences. To convey an idea of the importance which I attach to conservative enucleation executed in opportune time, I may be allowed to say that I should prefer performing it ten times without absolute necessity, to neglecting it once in a case of misunderstood urgency."—*Brit. and For. Med.-Chir. Rev.*, Oct., from *Annales d'Oculistique*, May, 1865.

37. *Retinal Disease occurring in the Course of Kidney Disease.*—In the No. of the *Med. Times & Gaz.* for Nov. 18, 1865, there are reported a number of cases, from several sources, showing the connection of certain changes in the retina with Bright's disease.

Mr. HULKE gives, in the same journal for Jan. 2, 1864, the following account of these changes:—

"The structural alterations which give rise to these morbid appearances have been ably worked out by German investigators, with whom the retinal disease appears to be more common than with us. Summed up briefly, the grayish opacity of the nerve-disk and retina proceeds from serous infiltration, from sclerosis and hypertrophy of the connective tissue, and from a nodular thickening of the nerve fibres, which acquire such dimensions that some have maintained them to be sclerosed ganglion cells. The small, brilliant white dots are groups of large granular oil-corpuscles, situated in the layer of the outer and of the inner granules. Schweigger supposes that they originate in the connective tissue corpuscles. The redness of the optic disk is from capillary congestion, and perhaps also from the presence of new vessels. The apparent interruption of the vein is due to the intervention at those spots of a thicker layer of opaque retinal tissue between them and the observer. The white appearance of the arteries is caused by amyloid changes in their walls, with corresponding diminution of their calibre. The hemorrhages proceed from—*a*, the disturbed vis capillaris resulting from the morbid state of the blood produced by the kidney disease; *b*, an increased mechanical resistance to the free efflux of blood through the veins at the nerve-disk offered by the sclerosed connective tissue; *c*, and in some cases, hypertrophy of the left ventricle, which urges the blood more freely into the retina than it is able to escape from it. These are the morbid changes which cause the loss of sight. The sudden obscurations (distinguished from accidentally discovered pre-existing dimness) depend on hemorrhages, and their recession coincides with the removal of the extravasated blood. Some cases are susceptible of considerable improvement by treatment. That which I often follow consists in putting a leech to the temple once a week, and the internal

exhibition of the tinct. ferri muriatis. Corrosive sublimate, so useful in some forms of retinitis, has not appeared to me to be serviceable here."

MR. ERNEST HART, in calling attention to a case of advanced albuminuric retinitis at St. Mary's Hospital, remarked that it was of particular interest to ascertain how far the disturbances of vision, associated with nephritic albuminuria, were pathognomonic, and what extent the ophthalmoscopic examination of the eye, in patients so affected, could assist the diagnosis or aid the treatment. Ophthalmic surgeons occasionally meet with cases of acute retinitis albuminurica in which the affection of the sight is the first striking symptom, and in which the ophthalmoscope anticipates the diagnosis of the physician, derived from the clinical history and the chemical analysis of the urine. Such cases, however, were, in his experience, rare, and usually were examples of oversight due to various causes, such as eccentricity of the complaint or of the patient, and unusual complications diverting the attention of the physician. In the case in question the patient had come to a practitioner complaining of acute pains in the ankles—"rheumatic pains," as he himself called them. That diagnosis had seemed to be borne out by various collateral circumstances, and had passed muster; meanwhile, however, and rapidly, the sight had become very much disturbed, and, as the man's livelihood depended upon his keen perception of minute textile difference of structure, he was quick to perceive and to suffer from this deterioration of the acuteness of his vision. When examined by Mr. Hart, the ophthalmoscope immediately revealed, in the right eye, the most marked and considerable retinal changes, perfectly diagnostic of albuminuric retinitis, obscurity of the papilla, bright fatty patches of the retina, with a tendency to grouping around the yellow spot, and irregular extravasations of blood affecting the linear arrangement. The diagnosis was permissively positive, for the changes accompanying albuminuric retinitis once seen cannot be mistaken. The vision of the eye was considerably affected, much more so than the patient had been aware till the eyes were tested separately. Only No. IV. Giraud Teulon's type could he read at the ordinary reading distance. The examination of the urine showed a large amount of albumen. Treatment by muriated tincture of steel with a free use of the Turkish bath failed to relieve the patient, and he died at the end of three months, all but blind with the right eye, and having very imperfect vision with the left. The pathological changes were of a typical character, the ecchymoses becoming more numerous, the fatty patches coalescing, and the macula lutea being almost entirely destroyed; the retina was not detached. Mr. Hart expressed the opinion that the ophthalmoscopic observation of these symptoms was interesting, as affording a means of studying the changes which the nervous, like the other tissues, undergo in this blood disease, but they afford no indications for local treatment, which, indeed, in such a condition, would be out of place. To what extent could repair go on after serious destruction of the retinal nerve tissue? An examination of a series of cases of albuminuric retinitis might afford the answer. He had not had the opportunity of witnessing any case in which good result had attended treatment, but probably others might have done so. He knew of no record, but would hesitate to believe that nephritis with albuminuric retinitis was always fatal. This was a point to be decided by the accumulation of evidence.

There were, however, other and more trifling affections of the sight in nephritic albuminuria which came under the notice of the ophthalmic surgeon, in which the ophthalmoscope revealed nothing, but to which attention should be directed, because he believed that, as they were of earlier occurrence so they were of greater value in directing treatment. There is a form of intermittent dimness of vision unaccompanied by ophthalmoscopic change which had frequently come before him, and in which, guided by the observations of Landouzy, he had always looked for albuminuria in the urine, and several times he had found it. It was unassociated with any apparent change in the retina, and was probably due to the cerebral disorder either precedent to or consequent upon albuminuria. M. Landouzy, who approached the question from the simple study of the naked eye symptoms, had drawn the following conclusions from his study: 1. That the disturbance of vision is an almost constant symptom in albuminous nephritis. 2. That these troubles constitute a new species of amaurosis, which may

be called albuminuric. 3. That the albuminuric amaurosis cannot be attributed to the deterioration of the strength. 4. That it very often announces the disease as an initial sign, before the invasion of the pathognomonic accidents. 5. That it appears and disappears, and then returns without exactly following the phases of the albuminous deposit in the urine or of the oedema. 6. That it should lead us to consider albuminous nephritis as an alteration of the ganglionic system.

Mr. Hart remarks that Dr. Roberts, in his recent work, attributes the "hemorrhagic blindness" of retinitis albuminurica, which he speaks of as in no sense uræmic to the hypertrophy of the left ventricle, which so commonly accompanies a contracting kidney and the increased tension in the arterial system consequent thereto. But that this explanation, while it assists to understand the frequency of the extravasation from rupture of small retinal vessels, would be incomplete unless we recalled also to the mind the considerable fatty degeneration of the retinal connective tissue and the sclerosis of the nerve-fibres. The deposit of fat was frequently locally anterior to the appearance of ecchymoses. The value of ophthalmoscopic examination in all cases, whether of amblyopia or retinitis albuminurica, was thus apparent, both in reference to the negative information which it afforded in the one case, and the positive data supplied in the other. Intermittent amaurosis associated with albuminuria pointed, he said, to a train of causes very different to those connected with the incomplete but persistent blindness due to fatty substitution and inflammatory destruction of the nerve fibres of the retina. It was to be observed how much more complete the loss of vision was for the time where, as in the amblyopic state noted, the cause was central, than where, as in the true albuminuric retinitis, the loss of vision was due to peripheral disorganization. A considerable amount of retinal disease was compatible with the retention of considerable power of sight; and thus, as in other forms of disorganization of the retina, especially pigmentary retinitis, the patient did not discover the serious affection of the eyes until the disease had extended very far. Hence, if the use of the ophthalmoscope were deferred until urgent symptoms appeared, the examination was apt to be put off till the changes of doing good were materially diminished. It was the more important to remember this because it was precisely in the case of peripheral disease that the ophthalmoscope afforded the most extended and most useful information, and enabled the surgeon or physician carefully to intervene, if in time and in suitable cases.

Mr. HUTCHINSON, in some clinical remarks at the Royal London Ophthalmic Hospital on cases of disease of the retina from Bright's disease, mentioned that he had repeatedly diagnosed the existence of the latter from observation of the state of the eye. It was not, he observed, in the cases of Bright's disease, attended by dropsy, and, therefore, furnishing their own clue at a glance, that retinal changes were most often met with. It was rather in a group of insidious cases, in which patients become dyspeptic, suffer from general malaise, and lose colour without showing more definite symptoms, that retinal deposits are met with. He related some instructive facts illustrating this, and proving also how important a good knowledge of the ophthalmoscope is to the general physician. In one, a gentleman from Liverpool had been for a long time under medical treatment on account of dyspepsia, and at length found his sight failing. For the latter symptom he came up to town, and on using the ophthalmoscope the conditions characteristic of Bright's disease were at once found, and on examination of his urine, albumen was detected. In a second instance, a lady from New Cross was sent to Mr. Hutchinson by her medical attendant with the history that for a year past she had suffered from great irritability of stomach and was now losing her sight. Her retina showed apoplexies and albuminoid deposits, and this led to examination of the urine with the result anticipated. In neither of these two cases had the patients ever suffered from dropsy or oedema of the feet. A third case was yet more interesting since the discovery of retinal disease was made under very unusual circumstances. Last winter a man was admitted into the London Hospital having been found insensible in a woodyard. He was a workman in the yard, and was believed to have fallen from a stack of wood, but no one had seen him fall. His head was bruised, but

no serious injuries could be detected; as he was quite insensible, no history could be obtained from himself. The pupils were dilated. On using the ophthalmoscope, Mr. Hutchinson found, to his surprise, the usual evidences of Bright's disease in both retinae. There were patches and dots of deposit and large extravasations. This discovery led to the suggestion that the man was suffering from apoplexy, and not from injury. He died during the following night, and the autopsy proved the correctness of the diagnosis. Both retinae were extensively diseased; the urine contained in the bladder was loaded with albumen, and the kidneys were contracted and granular; the lateral ventricles of the brain were crammed with blood-clot. The man had not suffered from dropsy, and had kept at his work throughout.

38. *Graves' Disease.*—The following interesting clinical remarks were made by Dr. REITH on the occasion of a case of Graves' disease admitted into Aberdeen Royal Infirmary, and in which an opportunity was afforded for a post-mortem examination.

The singular triple combination of symptoms constituting Graves' disease is by no means an uncommon occurrence. Interesting as it is to the physiologist as well as to the pathologist, its nature has given rise to much discussion, inasmuch as the post-mortem examinations of patients affected with it have not tended to unveil the obscurity which surrounds it. When we reflect that the essential feature of the disease is the existence in the same individual of a triad of symptoms apparently unconnected with each other—namely, palpitation, enlargement of the thyroid gland, and protrusion of the eyes, we cannot be surprised at the great difference of opinion which prevails regarding its pathology. The difficulty is not diminished by the circumstance that, in some cases, one of the above symptoms is wanting, and that the affection occurs in stout as well as in anæmic persons. But whatever may be the primary cause, it is evident that those theories which refer the symptoms to anæmia and chlorosis, to pressure on the veins by the enlarged thyroid gland, or to venereal excess and disordered sexual function, are untenable, on the following grounds:—

1. Many of the patients are neither anæmic nor chlorotic; on the contrary, some are well-coloured, and even plethoric.

2. In not a few instances, especially in men, the thyroid gland is but slightly enlarged.

3. One of the three most prominent symptoms is often absent, or but slightly manifested. Thus there may be palpitation and goitre without proptosis, palpitation and proptosis without goitre, goitre and proptosis without palpitation.

4. The symptoms succeed each other in different orders in different individuals.

5. Patients affected with debilitating discharges are not subject to this disease.

6. The cardiac murmur at the base of the heart, when present, differs from that of anæmia.

7. Considering the rarity of the disease compared with the number of persons addicted to venereal excess, we can scarcely regard such excess as having any connection with it. There is, however, an undoubted relation between it and disturbance of the female sexual functions.

The opinion, first promulgated, I believe, by Trousseau, and now shared by Begbie, Fletcher, Laycock, etc., that the true cause of the disease is a neurosis of the cervical sympathetic nerve—is the one most consistent with our present physiological knowledge. The striking resemblance between the effects of artificial lesion of the sympathetic and the symptoms of Graves' disease fully justifies the inquiry as to the probability of a morbid lesion of the same nerve being the *fons et origo mali*. The connection of the sympathetic with the heart and the thyroid gland may be considered as satisfactorily demonstrated; and as excitement of the female sexual organs influences by reflex action through the ganglionic system, both the heart and the thyroid gland, there is ample reason for assuming that a lesion of that system itself would operate directly upon the organs connected with it. I am not aware that any post-mortem examination has yet thrown light upon the condition of the sympathetic in Graves' disease, and, consequently, Trousseau's opinion, however probable, requires confirmation. The case just recorded will therefore be of interest.