

any structural pathological changes in the kidney. This evidence is found in the study of gestation. I have on many occasions (notably in my Lumléian Lectures at the College of Physicians in 1873, and in the "Obstetric Medicine and Surgery" by myself and Fancourt Barnes, 1884-5) enforced the argument that it is impossible to attain to the right appreciation of many of the great problems in general medicine and surgery if the increasing and reverberating light which the careful study of obstetrics can throw upon them be shut out. The problem before us presents a striking illustration.

The theory widely prevailing is that set out by Braun: that albuminuria in pregnancy in a marked and persistent degree is an indication of organic disease of the kidney. This is certainly true in some cases. But it must be remembered that the three stages of Bright's disease described by Braun are revelations of the deadhouse. His descriptions cannot be accepted as true of the cases that completely recover; and it is in these cases of recovery that we see direct proof of physiological albuminuria—that is, independent of deep or permanent structural lesion. This truth has been recognised by Depaul,¹ who expressly says that, in necropsies he had made, the kidneys were perfectly healthy or simply congested. Others have contended that the condition is nephritis, and we must conclude that, as in the case of other organs, inflammation of the kidney may completely pass away. This theory of nephritis was expounded by the illustrious Rayer in 1840, under whom it was my good fortune to study. He called it "néphrite albumineuse." Southey in an excellent clinical lecture² describes the condition under the name "pregnancy nephritis." Other recent authors speak of "acute desquamative nephritis."

Now, I have ventured upon strictly clinical evidence to question the reality of this nephritis as the common explanation. I will not deny its occurrence in exceptional cases; but I do deny that it is frequent, much less general. The problem may, I think, be solved, not by confining our observation to the kidney, but by extending it to the broad field of the phenomena of gestation.

Amongst these correlated phenomena this is what we see: Examining the vaginal-portion of the uterus and the fundus, intense hyperæmia of the mucous membrane, and the surface covered by creamy discharge. This discharge consists of epithelial scales shed under the intense physiological hyperæmia. These scales are in fatty degeneration; they are suspended in an albuminous plasma. A similar condition is often found in other mucous tracts open to direct observation, especially the rectum. It is in the highest degree probable that the mucous membrane of the glandular structure of the kidney, an organ specially within the range of the high vascular tension ruling in gestation, and liable to constant irritation by the waste stuff brought to it for elimination, suffers in like manner. We infer from this that no structural lesion of the kidney is necessary. The kidney conditions attending the initiatory stages of albuminuria and convulsions are simply the result of the high vascular tension, which tells upon the whole mucous tract, and of the attendant high nervous tension. This theory is in harmony with the late Dr. Mahomed's observations on the pre-albuminuric stage, and with the clinical history of scarlatina, in which disease there is also high nervous and vascular tension, intense congestion of the mucous membrane, and an irritating poison in the blood. This relation seems to have been quite overlooked in the recent discussion in the Obstetrical Society on Scarlatina in Pregnancy and Puerperry.

The following passage from Warburton Bagbie is singularly applicable. "What," he asks, "is the cause of the albuminuria in simple scarlatina, and what is its pathological import? I conceive it to be as essential a symptom of the disease as is desquamation of the cuticle—to be, in fact, the result of a desquamative process, which the mucous membranes, equally with the skin, are subject to. Granted, then, that the desquamation occurs when such a change is taking place in the epithelial membrane lining the minute tubes of the kidneys, the office of the cells composing which is to eliminate from the blood the matters, solid or fluid, which in the normal exercise of the renal functions compose the urine, it surely is not surprising that the albumen from the former should to a slight amount enter into the latter."

Thus the albuminuria of gestation and the albuminuria

of scarlatina illustrate each other. The exceptional occurrence of albuminuria in both states, and the frequent complete recovery of the kidney in both, exclude the theory of inflammation or Bright's disease as the rule. In both cases it is true that the physiological process is strained to the verge of endurance; in some cases, indeed, the boundary is forced, and physiology yields to pathology. This is more especially the case in scarlatina.

The foregoing discussion throws considerable light upon the history of albuminuria, and especially upon the "cyclic albuminuria" of Dr. Pavy. When physician to the *Dreadnought* hospital I saw several cases of transient albuminuria from sudden immersion in cold water. Dr. Pavy's observation that albuminuria, absent at other times, appears some little time after the subject has assumed the upright posture, bears further testimony to the influence of relatively high arterial tension.

The general indication for treatment in all the cases of albuminuria, physiological and pathological, is to take off the strain from the kidneys as much as possible, by making the correlated organs—the skin, lung, liver, and intestines—do full work in elimination, and thus, aided by appropriate agents, as digitalis, to reduce the excessive action of the heart.

ON

EXTRACTION OF IMMATURE CATARACT.

BY CHARLES HIGGENS, F.R.C.S.,

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THE treatment of immature nuclear cataract has long been, and still is, one of the vexed questions of ophthalmic surgery. Extraction by ordinary methods has not been followed by a good percentage of success on account of the transparent cortex inevitably left behind, which afterwards becomes opaque and blocks the pupil, causes dense capsular obstruction, or sets up severe iritis, leading to closure of the pupil. "Ripening" the cataract by puncturing the lens with a needle, and extracting it when it has become opaque, has been followed by no better results. Washing out the capsule is still under trial, and in my hands has not been very successful. The method of treatment about to be described has given very fairly good results; the cases reported are the first half-dozen I have done, and the results, although not brilliant, are encouraging. The procedure has for its object the removal of the lens in its capsule. The details of the operation are not quite the same in all the six cases, but I am of opinion that it is best to make the section downwards, and to operate under profound anæsthesia, as follows: A fair-sized iridectomy should be performed downwards, as a preliminary, some weeks or months before extracting the cataract. I recommend preliminary iridectomy because I believe that the risk of iritis after extraction is much less than if the iris is freshly wounded at the time of extraction. I do it downwards, because the manipulation with the vectis in removal of the cataract is so much more simple when the section is made downwards than when it is made upwards; and also, if the nucleus of the lens alone is opaque, vision may be improved for a time by an artificial pupil in this direction. I remove the lens in its capsule through a small flap section made downwards; the instrument employed for its extraction is the small flexible wire loop, or vectis, designed by Dr. C. B. Taylor of Nottingham. One point comes out clearly in the cases reported—i.e., that the loss of even a considerable quantity of vitreous does not of necessity preclude a fairly successful result. In five out of the six cases vitreous was lost; in one (Case 5) the amount was large. I am of opinion that loss of vitreous does not materially affect the ultimate result of an extraction, provided the whole of the cataract is got away; but if pieces of lens are left mixed up with vitreous upon or behind the iris, severe and very probably destructive iritis will be set up. Case 3, however, would appear to be a contradiction to this view. It should be noticed, in estimating the results obtained in these cases, that in three the eyes were probably unsound; in two (Cases 2 and 3) the cataract was associated with high degrees of myopia; and one (Case 6) was an instance of posterior polar cataract—a form

¹ L'Union Médicale, 1854.

² THE LANCET, 1883.

of opacity often associated with disease in the deeper parts of the globe.

CASE 1.—John O—, aged sixty-three. Both eyes: immature nuclear cataract.—Feb. 14th, 1887: Left eye—extraction through small flap downwards; iridectomy; lens removed with loop; some vitreous lost. Cocaine was employed.—March 21st: Vision $\frac{1}{2}$ with + 13 D, and Jaeger 4 with + 16 D.

CASE 2.—Martha B—, aged sixty-eight. Both eyes: immature nuclear cataract; high degree of myopia; considerable choroid changes.—March 21st, 1887: Iridectomy downwards performed in the right eye five months previously; extraction with loop through small flap downwards; no vitreous lost. Under anæsthetic.—March 4th: Vision $\frac{2}{3}$, and Jaeger 10 without any glass.

CASE 3.—Adelaide S—, aged fifty-eight. Both eyes: immature nuclear cataract; high degree of myopia.—April 25th, 1887: Iridectomy upwards performed ten weeks previously; small flap upwards; lens removed with loop; capsule ruptured during removal; some soft matter left behind; vitreous lost. Under cocaine. A dense capsular obstruction formed, which required three needle operations.—Feb. 20th, 1888: Vision $\frac{6}{8}$ with + 5 D, and Jaeger 12 with + 6 D.

CASE 4.—Daniel S—, aged sixty. Both eyes: immature nuclear cataract.—May 2nd, 1887: Iridectomy downwards performed in right eye fourteen days previously; lens removed with loop through small flap section downwards; vitreous lost. Under cocaine.—June 3rd: Vision $\frac{6}{8}$ with + 10 D, and Jaeger 12 with + 12 D.

CASE 5.—John C—, aged fifty-eight. Both eyes: immature nuclear cataract.—June 20th, 1887: Iridectomy in left eye some months previously; extraction through small flap downwards. The patient was imperfectly anæsthetised, strained much, and the lens was squeezed out in its capsule with a large quantity of vitreous; nevertheless, all went on well.—Oct. 10th: Vision $\frac{3}{4}$ with + 11 D, and Jaeger 10 with + 16 D.

CASE 6.—Richard R—, aged fifty-five. Both eyes: posterior polar cataract.—Oct. 17th, 1887: Iridectomy downwards performed in left eye some years ago; extraction with loop through small flap section downwards; vitreous lost. Under anæsthetic.—Nov. 14th: Vision $\frac{6}{8}$ with + 12 D, and Jaeger 6 with + 16 D.

THE MEDICAL OUT-PATIENT ROOM, IN ITS RELATIONS TO THE PUBLIC, THE STUDENTS, AND THE HOSPITAL AUTHORITIES.¹

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GENTLEMEN,—At the beginning of the past winter I delivered a short address,² in which I endeavoured to give you some idea of the nature of the practice in which you were here to be engaged, and to explain to you the plan upon which I proposed to conduct the clinique which we are now closing for another session. After the lapse of what has been for most of you a period of good honest work, I think it right that we should again consider the general question of dispensary instruction and practice. I do this the more readily because I see that the medical students of the University have been memorialising the directors of the Western Infirmary on the subject of dispensary practice and teaching. You will find an account of the action the students have taken in the *Glasgow Evening News* of March 13th, 1888, and I must say I am glad the students' Representative Council has taken the matter up, for the result is likely to be a much wider recognition of the great importance of careful dispensary training in our educational system. I propose, therefore, to-day to invite your attention to the medical out-patient room in its relations to the public, the students, and the hospital authorities, with the object of attempting clearly to formulate certain opinions

which of late years, and more especially during the past winter, have been maturing in my mind.

What is the relationship existing between the dispensary and the public? The dispensary is part of a great charitable organisation instituted by the public for the welfare of the poorer members of the community who may be unable, during sickness and the idleness this so often necessitates, to provide themselves with medical advice and treatment. The infirmary, therefore, is not an institution intended for paupers, who are otherwise efficiently (or inefficiently) provided for, although these are not entirely to be excluded from the benefits it affords. In addition to the donations and legacies of the wealthier members of the community, the infirmary is also supported, and largely so, by the contributions of the working classes. But although this is the case, the infirmary organisation is in no sense to be regarded as a sick benefit association, to the advantages of which the contributors can claim a prescriptive right. Were this the case, the great Christian duty of charity and loving-kindness towards our fellow-men would entirely disappear from our infirmary scheme, which would then be little better than a paying accident insurance company. From these considerations it would appear that a charitable dispensary such as this is an organisation founded by a benevolent public for those whose claim—whose only claim—to its benefits lies in the fact that they are sick and poor. The first duty, then, of the dispensary to the public is to supply skilled medical and surgical advice to the suffering poor, and to do this without causing the patients to feel that they are being pauperised in accepting it, and without recognising that they have any other claim than that mentioned above. That the dispensary of this or any other great public charity is liable to abuse is a fact of which there can be no doubt, but with which we have at present nothing to do. In my opinion the reformation of such abuses cannot with dignity be initiated by members of the medical profession; such reform must be carried through by the public on the one hand and the administrative department of the hospital on the other. Again, in all matters affecting individual and public health the out-patient room of a large infirmary occupies the position of a great educational organisation. In addition to providing medical advice and treatment, it is the duty of the members of the dispensary staff to impress upon their patients the laws of health, to teach them that disease is frequently the sole and inevitable result of disobedience to those natural laws on which all health and well-being depend, and to urge upon them the fact that continued infringement of those laws must lead to continued disease in the individual, and probably, also, to its extension to others. This is an aspect of such a charity as ours which is perhaps often lost sight of, and which, therefore, it is well, under our present circumstances, to bear in mind. We must always remember that "prevention is better than cure," and that the dispensary should be a great moral as well as medical influence.

I now pass on to consider the second, and to us perhaps more directly interesting, portion of our subject—viz., the relationship of the dispensary to the students attending the hospital. That the work done in the dispensary is a most important element in the education of our future medical men no one will for a moment doubt. In my previous address I explained the plan of our clinique, and I now propose to look back over the way by which we have travelled, and to see how far we have realised the ideal with which we set out. On making such a review, I find that on the whole we have reason to be satisfied with the progress we have made during the past winter session. So far as possible I have endeavoured to maintain strict discipline in the class, both as regards attendance and work. The roll has been regularly called every class-day, and a note of the number of times each student has been entrusted with the entire investigation of a case has been taken. I find that we started with a roll of twenty, of whom sixteen are entitled to receive a ticket of regular attendance, and that we had an average daily attendance of nearly thirteen. Each member of the class had on an average seven or eight opportunities (some a much larger number) of undertaking the entire examination of a case under my supervision, besides which all the students were enabled to watch both my own practice and that of their fellows, and were given facilities of appreciating for themselves all the more important physical signs. Latterly, also, I have employed many of you as clinical clerks, asking you

Remarks made at the closing of the author's clinique, March 24th, 1888.
² THE LANCET, March 3rd, 1888.