

though not squeamish, personally recoiled from it, on account of her filthy abode and surroundings.)

The next day, at 1 P.M., it was reported that she had not had a fit since 11 P.M. The pupils were dilated, the face calm, the respiration easy. She was soporose, and I attempted to rouse her. At length, after pinching, and bawling loudly several times "Do you feel better?" she slowly answered "yes," and then seemed to relapse into unconsciousness. She had not spoken for sixty-four hours. The lochia returned this morning. I was afterwards told that she did not again speak until 10 P.M. The next day she was lethargic, but sensible; and said she could eat something. The pulse was quiet; the surface warm; and the pupils moderate. The urine, which I had not previously examined or drawn off, was very high coloured, and contained a very large amount of lithates, but no albumen. The tongue was clean, but greatly lacerated. The bowels had not again acted. The lochia had disappeared. She said she did not remember anything that had passed. Little remains to be detailed. She took plenty of beef-tea; the bowels acted well spontaneously; the general swelling rapidly disappeared; and, except with occasional headache, she recovered well in about a week.

REMARKS. Waiving the consideration of therapeutics, which could hardly be efficient, owing to the highly unfavourable circumstances to which the patient was subjected, I shall dwell briefly on one or two points of pathological interest. *In limine*, I imagine, the case will be conceded to be one of puerperal eclampsia.

It is familiar to all that this affection is very seldom encountered after delivery. It is also a clinical fact, that it is infinitely rare, except in the primiparous female. According to Dr. Rigby, in two cases which came under his notice, where it occurred in multiparæ, it did not appear until after delivery; but the period is not noted. In neither case, I apprehend, was the advent of the seizure so protracted as in the one here narrated.

The long duration of the coma, coupled with the recovery of the patient, is a feature worthy of remark.

Lastly, the causative agency may be considered; and here I may state that Dr. Nebinger (*BRITISH MEDICAL JOURNAL*, Feb. 8th, 1862) affirms that "the nature of puerperal convulsion is yet undecided;" that the cause or causes are undetermined; "that uremia is the only cause, is not only doubted, but denied, if not disproved." The case before us establishes the correctness of these propositions.

I may admit, that I somewhat confidently ascribed the attack to, or at least deemed it to be associated with, imperfect renal function, on account of the general puffiness of the superficial tissues; but examination of the urinary secretion did not reveal the presence of albumen, although it should not be forgotten that the analysis was deferred until the fourth day. It may be added that Dr. Rigby, in treating of puerperal convulsions, makes no reference to the condition of the urine.

The abundance of lithates would indicate some mal-assimilative process, and suggests the possibility of connection between the convulsions and disturbance of the normal retrograde metamorphosis of the uterus, which accompanies post-parturient involution.

The patient, doubtless, rose too soon after her confinement; viz., on the fifth day. Dr. Simpson observes "both in the healthy and in the morbid state, the uterus is apt to become more congested, when the patient assumes the erect position, and a morbid degree of congestion interferes with various physiological functions." Hence it may, with some probability, be inferred that the attack was precipitated by uterine irritation or congestion; nevertheless, on reviewing all the facts and symptoms, it must be assented that its etiology remains obscure.

HARD CATARACT AND SOFT: THE CONDITIONS ON WHICH THE DISTINCTION IS FOUNDED, AND THE PRACTICAL BEARING OF SUCH CLASSIFICATION:

BEING REMARKS IN THE COURSE OF CLINICAL INSTRUCTION AT THE CENTRAL LONDON OPHTHALMIC HOSPITAL.

By HAYNES WALTON, Esq., F.R.C.S., Surgeon to the Hospital, and to St. Mary's.

I AM quite sure, from much experience, that I shall best impart the instruction I wish to convey respecting the difference in cataracts, and the appropriate operations, by recognising only two kinds, the hard and the soft, as founded on lenticular degeneration; and disregarding any special consideration of opacity of the lens-capsule in the sense of capsular cataract. It is the only truly practical manner of treating the subject, because it is founded on the way in which it is regarded in actual practice. I find that when a student, without any previous knowledge, follows my practice, and receives his instruction after this method, he more readily acquires the desired information than he who brings with him, from previous reading, the terms capsular cataract, capsulo-lenticular, cortical, nuclear, etc. Not that I quarrel with such, but would certainly keep them out of the way, at least till the learner has gathered some substantial knowledge of the disease, and can trust himself to discriminate what he sees. It is chiefly on account of the complex description met with in text-books, and the very many terms relating to cataracts, that few students, with even good opportunities before them, ever master the subject. I cannot forget how I was bewildered with the names, and almost threw up the study in despair, when, after the "true cataracts", I found described the "spurious", including the pigmentous, the purulent, the sanguineous, and many others—expressions which are founded on conditions that can exist only in disorganised eyes, and literally bear no pathological connexion whatever with cataract as disease of the crystalline lens, and had far better never have been invented. I am sorry to be obliged ever to allude to them, and I beg you to forget them immediately.

I shall speak, therefore, only of hard cataract and soft. I think that the terms are more correct and less objectionable than any that have been suggested.

It is an universal rule, that the lens never loses its transparency and becomes a cataract without alterations in its tissue. It degenerates in different ways at different periods of life. Hard cataract is essentially a disease of elderly and old persons. As we grow older, the lens changes some of its physical characters, and between the fortieth and fiftieth year of our existence has become palpably denser, especially in the centre, and more or less of an amber tint.

Hard cataract is opacity appearing in a lens so changed. It can, therefore, never appear before the middle period of life. The statement, yet to be found in the writings of some of our living authors, to the effect that it is occasionally met with even in children, is not correct, but a mistake made in utter ignorance of the facts that I have mentioned.

So soon as the cataract begins to form, structural degeneration of the lens sets in. When formed, the superficial portion is preternaturally soft, sometimes softened down to a semifluid mass. This arises from softening and more or less disintegration of the lens-fibres, which are dotted over with fine molecular matter, also found floating free in masses, filling up and rendering opaque many of the superficial lens-cells, of which the very circumference of the lens is made up—that part of it which is in contact with the capsule. The nucleus is, on the contrary, hard, and dry to a degree far exceeding

what is ever met with in health. The lens-tubes are hard, atrophied, brittle, and more or less opaque by fine molecular deposit, as well as by little cracks and fissures. It is not readily broken through, but requires as much pressure as a modern cataract-needle, such as I use, will bear. It breaks with a fractured surface, not unlike that of a piece of broken yellow wax. It is probable that the molecular matter is the result of the coagulation of the albuminous blastema, by which the whole of the lens-textures are pervaded. It is this change in the centre that requires hard cataract to be extracted, because the nucleus resists the process of absorption considerably. It might, in the course of many months or a year or two, be so removed; but there is this practical objection to the operation for solution, that after the soft part of the cataract has disappeared, if not before, the nucleus is very likely to be dislocated from the capsule, and produce destructive inflammation, if not extracted in time. But the dislocation may be posterior to the iris, when the operation is barely practically safe.

The softened superficies often remain in the eye during the operation for extraction—a matter of no importance, as it quickly disappears.

Sometimes, in consequence of the iris being very near to the cornea, the operation for extraction cannot be done without unwarranted violence to the eye. Mr. Tyrrell suggested that an advantage may be taken of the surface-softening, and the double operation for solution and extraction be applied. So soon as the soft matter is absorbed, the iris will in all probability fall back, and be out of the way of the cataract-knife in its passing through the cornea. I can speak most highly of the method. I do not know of any one but myself doing it.

The operation for depression, by which the cataract is pushed from its place and buried in the vitreous humour, is especially bad in theory, and no better in results.

The diagnosis of hard cataract is not a difficult matter. The age of the person is a material guide. The appearances of a well-marked specimen are, a mixture of dark grey and amber, more deeply shaded in the centre, owing to the natural anatomical configuration; or mottling of grey and amber, or amber colour only. But I must stop here, because I am neither giving a systematic description of the general appearances of cataract, nor attempting the impossibility of teaching you how to diagnose by merely telling about the shades of colour of a disease. There are abundant opportunities of acquiring the desired knowledge by actual observation. All that I profess to do, is only to draw your attention to the chief parts connected with the surgical pathology of cataract.

The capsule of the lens is frequently not affected in hard cataract; but it might be slightly opaque, being only a little hazy, therefore it does not hide the amber tint; and not getting materially dense, does not interfere with extraction.

Soft cataract is met with under two conditions. In the one, as opacity invading a lens that has not yet become amber-coloured and denser by age, and, therefore, exists only under the middle period of life. In the other, as disintegration, or breaking down, or softening of the entire lens-tissue, occurring at any period of life, even, but rarely, at the most advanced age. It is to this cataract that the operation for solution is so applicable and satisfactory.

Of course, as the natural changes in the colour and density of the lens are as gradual as those in any part of the body incidental to age, you must be prepared to meet with cataracts in persons a few years on either side of forty that can hardly be classed, as they show the characteristics of neither well marked. My rule is to deal with such, practically, as if they were soft.

The first of these forms of soft cataract is the most common. In operating, the cataract offers about the same resistance to the needle as the healthy lens of a young person; a fact readily ascertained by operating on an eye directly after death, that is within an hour or two. The morbid changes are essentially the same as those found among the superficial and soft layer of hard cataract.

The most characteristic appearances are a light grey colour, or greyish white; and in proportion as the cataract occurs earlier in life, is the grey matter more apparent. Sometimes there is a bluish whiteness resembling milk and water. The capsule is frequently hazy, and in proportion to the opacity, is the cataract whiter.

In the second, the rarer form of soft cataract, the disintegrating or breaking down states, the lens fibres are much destroyed or entirely disappear, their place being taken by fatty, earthy, and molecular matters. Here the capsule of the lens loses its transparency, and the appearance of the cataract is nearly always white, except when the lens-tissue has degenerated into a brownish or sepia-coloured fluid, a condition more commonly met with at the period of life when the lens has undergone coloration.

As it is only in the extremes of hard and soft cataract that the chief characteristics of each are met with, there being an intermediate state of insensible transition, so it is in the two forms of soft cataract that I have been describing.

It is very commonly supposed that soft cataracts acquire size, and afford indication of it in smallness of the chambers of the eye, commonly called the aqueous chambers. This is really no proof, as changes in the posterior part of the eye, especially preternatural vascularity of the ciliary apparatus, may throw the cataract forward, and even more or less reduce the space anteriorly. Besides, it could not happen except the capsule enlarges: a very unlikely occurrence.

I have given but a very sketchy outline of my subject; and I have carefully avoided detail. However, I trust enough has been said to assist you in your studies.

PURE AIR *v.* PURULENT INFECTION. M. Renault, Professor of Hippopathology, furnished some interesting facts in support of fresh air for animals. He stated that the Veterinary Hospital at Alfort, previous to 1828, was so miserably ventilated that every operation, even to bleeding, became complicated with accidents of gravity, and for a horse to enter was almost certain death. Since this epoch the buildings have been reconstructed with a view to aeration, and to cure is now the rule. The *infection purulente*, formerly so common, is now extremely rare, especially since it has become the practice to do the dressings by the light of day. (*American Medical Times*.)

AN ELECTRO-MAGNETISER. The English journal, the *Clerkenwell News and General Advertiser*, informs us that the "Commemorative Society of the National and Universal Exhibitions in aid of the Progress of Science and the Useful Arts," held in London—I should beg your readers to admire the title of this institution—has just elected Signor Giovanni Filippi, master magnetiser, of Turin, as honorary member of that institute, further decreeing to him their medal of the first class, in consideration of the numerous cures performed by him, and more particularly on account of the great philanthropy with which he gives up one day a week to free consultations for the poor. In addition to this, the *Nazione* gives us a letter from a mother whose daughter was cured of "rapid consumption" by the hero of the *Clerkenwell News*; and on the strength of these credentials I have no doubt this quack will impose on many a poor Italian.