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HOSPITAL PRACTICE:

METROPOLITAN AND PROVINCIAL.

MANCHESTER EYE HOSPITAL.

CASES OF GLISTENING APPEARANCE OF THE EYE.

By JOHN WINDSOR, Esq., Senior Surgeon to the Hospital.

ABOUT forty cases have been recorded in which a shining or glistening appearance of the eye has been observed. I have the notes of several cases which I had taken before seeing any account of this affection by others.

CASE I. The first case of it in my own practice, as far as I remember, occurred in a girl named Martha Chadwick, aged 18, residing at Cold Wall or Spotland Bridge, near Rochdale. She became a patient of the Manchester Eye Hospital, November 22nd, 1831. For her age, she appeared girlish, or younger than 18, short, slender, and of pale complexion. She stated that she had had always near, but in other respects pretty good sight, until lately, when her eyes became more liable than before to be affected with slight inflammation after exposure to cold. About twelve months previously to admission, her left eye failed her; it became rather inflamed and painful; her vision with it was less distinct, so that she could no longer read even large print. She could still see with her right eye till about six weeks before admission, when it also became inflamed and painful. In about two weeks more, she could only just distinguish by it light from darkness. When she was admitted, both eyes were nearly in the same state as to vision; still she said the light, especially of a sunny day, was painful to her.

Her eyes were rather prominent; the iris in each was of a greyish colour; the conjunctiva and sclerotic, especially of the right eye, were rather injected. The pupils of both eyes were dilated, that of the left circular, that of the right somewhat oblong from side to side; the left was occupied by a large white opaque lens, which projected also against the cornea, occupying a great part of the anterior chamber. In the right eye, a palish amber-coloured but transparent lens projected also through the pupil into the anterior chamber, occupying a similar situation, only being nearly transparent, while that in the left was opaque; and (perhaps from a peculiar refraction of the light) a striking yellowish gold-like shining or glistening border was very apparent at the pupillary margin of the iris.

Her general state of health was rather delicate; she was somewhat subject to headaches, and to taking cold, with slight cough in the winter. Pulse rather frequent, about 108 in the minute, perhaps from her long journey. The tongue was clean; the bowels were generally regular; the appetite was good.

December 1st. The case having been seen by my colleagues (Dr. Hull, Messrs. Barton, Hunt, and Walker), in the presence of some of them both lenses were extracted by a small incision of the cornea, including about one-fourth of its circumference. As soon as the capsule was penetrated by the point of the knife, the lenses flowed out; the left was soft, whitish, and opaque; the right transparent, and of a light amber colour. No difficulty was incurred in the operation; only a slight protrusion of the iris followed the extraction of the left.

December 2nd. There had been no pain, except slight in the right eye, for a very short time in the night.

December 6th. There had been a little pain in the left eye only, probably from slight protrusion of the iris, which was touched with nitrate of silver.

December 9th. There was still some irritation of the left eye, though she had complained but little. Six leeches were ordered to be applied near the eye.

January 9th, 1832. Very little pain was now felt from the protrusion of the iris. The repeated application of nitrate of silver had almost removed it, and she could see tolerably well with the left eye; but not with the right, although there had been no inflammation in the latter since the operation. The cornea, however, was prominent, and the anterior chamber very large, and not quite natural in appearance. Her general health seemed tolerably good.

January 15th. She went home, promising to return in a short time. It was soon evident that the want of vision of the right eye was owing to the cataract not having been entirely evacuated in the operation, as a substance slightly more opaque than the aqueous humour, and distinct from it, could be perceived in the anterior chamber, also giving a little yellowish appearance to the inferior border of the pupil, and no doubt interfering with vision.

January 24th. She returned from Rochdale. On examining the right eye, the upper part of the pupil was clear, but the inferior part of it, nearly two-thirds, was occupied by a body very nearly opaque, and extending from the pupil into the anterior chamber, presenting nearly the same appearance as the original lenticular body, only much smaller. (Had the capsule, after the greater portion of the lens had been extracted, closed upon the remainder, as it appeared somewhat pellucid?) Passing the needle through the sclerotic, I advanced the point through the pupil, and detached it from its situation, endeavouring to break it up. It followed the motions of the needle.

February 7th. A portion of the cataract still remaining, although more opaque than before, attached to the inferior border of the pupil, but more in the posterior than in the anterior chamber, I again acted upon it by the needle posteriorly, endeavouring to break it up as much as possible.

February 11th. By the last operation, the small opaque portion had been removed entirely behind the iris. There was no pain or inflammation of either eye.

October 1832. The patient called at the Hospital, on account of severe inflammation supervening in the left eye. The right eye was quite easy, with a clear good pupil; but it seemed to be amaurotic.

October 24th. The inflammation of the left eye had been almost removed by the application of leeches several times, and blistering behind the ear, with occasional aperients and pills of calomel and opium, until her mouth became a little sore. Her sight with the eye was but imperfect.

March 23rd, 1833. The right eye continued amaurotic, with the pupil dilated and clear, except a small portion of capsule at its lower part. In the left eye, the pupil was now nearly closed; but, as she could see a little with it, I passed in the iris-knife, and enlarged its size.

October 12th. The right eye was in the same state. Vision in the left eye was improved, although the pupil was but small.

May 1834. She was much in the same state; her general health seemed good.

April 1835. There was no particular change.

June 16th, 1838. The vision of the left eye, with a small linear pupil, and some injection of the external tunics, had not improved; but she could distinguish a little with it.

CASE II. Michael Cuddy, aged 27, a labourer, residing at Stockport, was admitted an out-patient of the Manchester Eye Hospital on July 14th, 1856, and soon afterwards became an in-patient. Five days previously (July 9th), in shovelling some matters on the railway, a piece of stone struck his right eye. Since this accident, he had had no distinct vision with it, only seeing the outlines of objects presented to him. On the

morning after the accident, the eye was discoloured, but he did not suffer severely for the first two or three days. The sclerotic appeared red; there was some blood at the inferior part of the anterior chamber, but the greatest part of this chamber was occupied by a shining metallic like substance, in the form of a granular disintegrated mass, very much resembling in appearance the old preparation called *aurum musivum* (mosaic gold); four or five portions were extremely resplendent. The substance seemed to extend from nearly the whole inner surface of the cornea backwards towards the iris, which was thus concealed by it. The iris of the other eye was of a greenish brown colour. No means had been used beyond the application of a bread and water poultice. The application of four leeches near the eye, a lead lotion, and a purging powder occasionally, were prescribed.

July 15th. The leeches bled well, and he was much relieved. The appearance of the eye was just the same as on the previous day. Pressure on the eye with his hand afforded him, he said, a good deal of ease.

July 23rd. No particular change was observed in the appearance of the eye. The leeches had been repeated twice, and a blister was applied behind the ear. His medicines were continued.

August 20th. The appearance of the eye was nearly the same. He had not much pain in it. He had lately taken twice a day a pill composed of extract of conium and blue pill, of each two grains and a half, to be reduced to one only each day. The other medicines were continued.

November 3rd. He had remained in the Hospital until now, some inflammation and pain of the eye still continuing. The peculiar brilliant metallic appearance of the eye was not so distinct as it had been, but still continued in some degree, as well as the reddish substance (grumous blood?) at the lower part of the anterior chamber; but the two appearances were more intermixed than they were at first. There had also, for the last few weeks, been an evident gradual wasting of the globe and of the cornea proportionately. He had little or no pain now, but the eye seemed amaurotic.

November 12th. No change had taken place in the eye since last report; and his circumstances obliged him to return to Ireland, his native country.

CASE III. Isaac Toft, aged 17, from Warrington, was admitted an in-patient of the Manchester Eye Hospital, June 6th, 1843. In the right eye, the pupil, of a moderate size, was occupied by an opaque capsule, adherent to the iris, and therefore unaffected by the admission of light. In the centre of the capsule, there was a transparent point, by which he had a *certain degree of vision*. In the left eye, the pupil, excessively dilated, so that a small rim only of the iris could be seen, was occupied also by an opaque body (the lens and its capsule?), on the surface of which, but chiefly on its inferior and inner part, a number, about twelve to fifteen, of small pearl-like glittering particles were very distinctly visible. I may here remark, that, from this appearance of glittering particles, I affixed to this form of scintillation, when it first occurred to me, the term of *margaritoid*, or pearl-like cataract.

With this left eye the patient could just distinguish light from darkness, or the outlines only of objects. Both eyes looked rather small, as if they incompletely filled the orbits; and both had the almost constant oscillatory movements usually observed in cases of congenital cataract. He said that he had been informed that the imperfection or almost total loss of his vision was first noticed when he was quite an infant; and that, when about seven years of age, he was placed under the care of the late Mr. Hall of Warrington, who, he believed, operated once on the right, and three times on the left eye; and that he suffered a good deal both at the time of and after each operation. From that period, all further treatment ceased up to the present time.

June 10th. I passed a curved needle behind the iris of the right eye, and detached the opaque capsule from the pupillary margin of this membrane, so as to render the aperture pretty clear. I then passed a straight needle through the cornea of the left eye, and so through what I considered the anterior capsule. A quantity of fluid cataract was seen to pass immediately into the anterior chamber, and soon afterwards the iris appeared to have considerably extended itself, although the pupil was still large.

June 11th. He had had no pain since the operation, except slightly for a short time in the right eye; and there was no appearance of inflammation. With the right eye he could see pretty well, but there was a little floating opaque capsule

visible at one side of the pupil. With the left eye he could also see a little, and there was a tolerable aperture now in the centre. There were still about the same number of particles visible, but they now presented more of a flaky white than of a brilliant pearl-like appearance.

June 13th. He was going on well, and no change had occurred in the eyes since last report.

June 21st. His condition was about the same.

After this he continued going on well as to the absence of inflammation, and seeing moderately, especially with the right eye, in which the pupil was nearly clear. In the left, although the iris appeared distinctly to expand immediately after the operation, there was now again only a small rim of it visible. The anterior chamber exhibited a dull darkish appearance, with the white flaky particles scattered over it, and apparently insoluble in the aqueous humour. (Were these particles small cholesterine crystals, or earthy matters?) It would be difficult to say what may have occasioned the very dilated state of the pupil—whether it was congenital, or had supervened subsequently. The capsule, if ever opened by preceding operation, appears to have closed again. The smallness of the youth's eyes, somewhat imperfectly filling the orbits, was observed when he first applied, and might perhaps be ascribed, partially at least, to the comparative disuse of his eyes from the period of infancy.

August 20th. The appearance of his eyes was about the same as before. His sight was tolerably good in both eyes, but decidedly better in the right than in the left. The opaque particles appeared just the same.

December 1st. No particular change was observable.

I have no further report from the last date.

In this case, of which I do not remember to have observed or read anything very similar, the glittering particles were of a bright whitish colour, not, as in the preceding case, of a golden hue; and they were disseminated (separately) over the surface, not agglomerated, as in the last case, into a mass.

CASE IV. Jesse Hutchinson, aged 37, a boiler-maker, residing at Bury, was admitted an in-patient of the Manchester Eye Hospital, May 4th, 1857. On April 27th, he was struck on his left eye by a chip of iron, but he was not sure whether or not it penetrated the organ. There was, just at the corneo-sclerotic junction, on the nasal side, an appearance of a slightly projecting portion of adherent lymph, or possibly of crystalline lens dislocated and broken by the blow, of about the size of a large pin's head, where, doubtless, the bit of iron had struck the part. The conjunctiva covering the sclerotic was very vascular and chemosed. There was a little blood effused at the lower part of the anterior chamber. Behind the inferior and inner pupillary border of the iris could be seen a golden-like or yellowish white resplendent appearance. There had been considerable lachrymation. The pain, more supraciliary than ocular, had been rather considerable, and accompanied with a feeling of numbness. Since the accident, he had not been able to see with this eye. He had taken two purging powders, and had applied a poultice and some lotion. He was ordered to have two leeches applied to the temple, and a lead lotion to the eye; and to take blue pill with conium every eight hours, and a purgative pill occasionally.

May 4th. He had little pain now, although the conjunctiva was much injected. The protrusion above mentioned presented a pellucid appearance, still of about the bulk of a large pin-head, just as in an ordinary protrusion of the posterior elastic lamina through an ulcer of the cornea. The yellowish bright appearance, varying somewhat in different lights, was still the same, being situated behind the inferior part of the pupil. The effused blood at the lower part of the anterior chamber had quite disappeared.

May 20th. The bright gilded appearance continued at the lower part of the pupil. The small protrusion had quite disappeared. He had scarcely any pain, and had now some, but very indistinct, vision with this eye.

May 25th. No particular change had taken place in the appearance of the eye. He left the Hospital, to become an out-patient; and I have no further note of the case.

CASE V. Thomas Metcalf, aged 16, residing at Chatburn, became an out-patient of the Manchester Eye Hospital May 4th, 1857. On the last day of April, he was struck on the right eye by a gun-cap. There was, however, no distinct appearance of external injury to indicate any penetration of the tunics; but there was considerable injection of them, although he did not complain of much pain. On the outer and inferior

part of the eye, behind the pupillary border of the iris, a bright shining opaque body was very visible, resembling considerably what has been above described, although perhaps scarcely so golden, glistening, or metallic-like. Four leeches were applied to the temple, and a lead lotion to the eye; and he was ordered to take a pill of calomel and opium every night, and a purgative powder every other morning.

May 14th. Very little change had occurred.

May 18th. The external tunics were still much injected, with some pain of the eye, which, in other respects, presented much the same appearance. Four leeches were applied.

May 25th. There was scarcely any change in the appearance of the eye. The medicines were continued.

July 2nd. He came to the Hospital, stating that he thought the gun-cap was making its appearance on the eye. On examination, I found a hard substance penetrating its inner and upper part. It occasioned him considerable pain, and the external tunics appeared a good deal inflamed. He felt the pain much increased five days previously; and, on looking at the eye, a small whitish tumour appeared, about equidistant from the inner canthus and the margin of the cornea. A poultice was applied; and the site of the white appearance became occupied by the slightly projecting gun-cap. I was able to seize and extract it by a pair of forceps. He immediately became much easier. A lead lotion was applied, and he was supplied with three purging powders.

September 8th. He had had no pain since last report, nor was there any appearance of inflammation in the eye, which had become evidently somewhat collapsed. The cornea was also reduced in size to about half that of the sound eye; a very small pupil was visible on the inner side of the small iris; but his vision with this eye seemed lost, that of the other remaining very good.

REMARKS. Of this peculiar brilliant, golden, resplendent appearance in the eye, I do not remember either to have seen or read of any similar case before the one I have related as occurring in M. Chadwick in 1831. In looking over Mr. Bowman's excellent *Lectures on the Eye*, I find he relates a case at p. 134 very similar in the appearances presented in the left eye to those of M. Chadwick, and where also, as in her case, there was a spontaneous dislocation of the lens forwards towards or into the anterior chamber; but in this case the other (right) eye was healthy. Mr. Bowman relates a second case, where a similar appearance occurred in the left eye, whilst the right lens, although clear, was partially spontaneously detached, and vacillated to and fro, yet affording good vision when the lens fell into the axis of the pupil. In the other (left) eye, the lens was extracted, but ultimately a state approaching to amaurosis occurred.

With regard to the second case, that of Michael Cuddy, it is not quite obvious what constituted the glittering metallic-like particles or substances so readily seen on looking into the eye, and evidently occupying the anterior chamber. I am inclined to ascribe the appearance to broken up lens passing forwards after the blow received, mixed with a portion of blood effused simultaneously, from the same cause. The case excited some interest. It was seen by my colleagues, including my son, Thomas Windsor, who had a drawing taken of it; and several times by Dr. Franks, a surgeon on the staff, who was then staying at Manchester, and who has paid much attention to ophthalmic surgery.

There is a case very like it mentioned in the *Annales d'Oculistique* for 1856, vol. xxxvi, p. 76. Other cases of this affection, named *scintillement d'œil*, are also referred to.

To the bright shining somewhat metallic-like appearance in the eye, as illustrated in the above cases, whether occurring spontaneously from some pathological change in the organ, or, as more frequently happens, a result of accident, especially of blows or strokes, I would beg leave to propose the appellation generally of *lamprophthalmos* (shining eye), or, where it is distinctly seated in the crystalline lens, the term *cataracta deaurata* (gilded cataract) would perhaps be appropriate.

In many cases, it seems to be the result of displacement—dislocation, more or less, of the lens; and, in some instances, there may be a change produced in the molecular arrangement of this organ, along with a peculiar decomposition or diffraction of light; but these suggestions I must leave to be confirmed or otherwise by further experience and observation, only again remarking, that the appearances are mostly ascribed, by continental surgeons especially, to the presence of cholesterine.

ST. BARTHOLOMEW'S HOSPITAL.

HYDROCEPHALUS TREATED BY TAPPING.

Under the care of W. LAWRENCE, Esq.

[Reported by W. CHIPPEDALE, Esq., House-Surgeon.]

A DELICATE, ill nourished, hydrocephalic female child, seven weeks old, was brought on December 29th to the Hospital. Unfortunately, there was no opportunity of ascertaining by measurement the circumference and breadth of the head previously to the evacuation of the fluid; but, as far as one could form an opinion from a hasty examination with the hand, there could not have been a less interval than three inches or more between the parietal bones, and from the coronal suture to the apex of the occipital bone was a space of at least seven inches.

There were several slight peculiarities in the form of the head; it differed in some respects from the ordinary appearances of hydrocephalus. There was a want of symmetry about the head, from the bones not being equally expanded. For instance, there was scarcely any protrusion of the frontal bone, not that marked prominence which is generally the case, and which might have been expected in the present instance, considering the quantity of fluid evidently contained in the cavity of the cranium. The occipital bone was thrust downwards and backwards, so that it was nearly horizontal in its direction; but this may have been due to the position in which the child habitually lay, so that the fluid gravitated towards the posterior and most dependent part. The same explanation may account for the want of symmetry, the left parietal projecting more than the right. This feature, however, did not disappear on the position of the child being changed.

The history which the mother gave was as follows. She stated that the child did not present any unusual appearances at birth, but that about three weeks afterwards she first noticed a swelling on the back of the head; and from that time the head had enlarged with a rapidity quite disproportionate to the growth of the rest of the body. The child lay in its mother's arms, in a semi-comatose state, apparently not taking notice of anything, and occasionally giving a low moan. The head dropped helplessly on one side, the vertebrae and muscles of the neck not being sufficiently strong to maintain it in the erect position. The eyes were prominent, directed downwards, and constantly rolling from one side to another; and, to add to the disfigurement, there was divergent strabismus. Such had been the state of the child for the last few weeks, but of late the head had enlarged rapidly, and the little sense or power of perception which it retained had become more dim; while, at the same time, the nutrition of the other parts remained at a standstill.

Under these circumstances, so fraught with immediate danger to the existence of the child, no other course was open than a resort to the trocar. The mother's consent having been obtained, a fine trocar and cannula were introduced about an inch and a half from the middle line, along the course of the coronal suture, and about eight ounces of clear pale fluid were drawn off. It escaped with a slight salutary motion, being influenced, I suppose, by the movements of the brain, or by the cries which the puncture evoked. The effects of the puncture were immediate and decided. While the fluid was flowing the child gave a louder cry than it had ever before uttered, and showed other signs of being more lively. The eyes became less prominent than before, and assumed a more natural direction, the rolling ceased, and the strabismus became less marked. The bones of the cranium collapsed, and their serrated edges became distinctly visible. More fluid might have been drawn off, but it was thought advisable not to do so. The child bore the operation remarkably well. No convulsions ensued. Strips of plaster were applied in a circular direction around the head, to give that support to which the brain had been accustomed, and which would be necessary to the regular performance of its functions. The child was brought to the Hospital four days afterwards. The mother stated, that it had appeared much relieved, and had been cheerful and lively for the first two days, but that on the third night it had become very restless and feverish, and from that time had relapsed into its former drowsy condition. The head, on the removal of the strapping, appeared very tense, and to have almost acquired its former dimensions. The surface of the head was hot. Mr. Lawrence repeated the puncture, but in a different situation. He selected the posterior part, as the fluid gravitated in that direction. Ten ounces were evacuated. A little hemorrhage