A clinical lecture / by Cornelius R. Agnew.

risk, we give the bladder the physiological rest it requires, and we convert penile catheterism, which in these cases is often a painful and difficult process, into perineal instrumentation, which is free from all these annoyances.—*The Lancet.*

CLINICAL RECORDS.

"Ex principiis, nascitur probabilitas: ex factis, vero veritas."

A Clinical Lecture. By CORNELIUS R. AGNEW, M.D., Clinical Professor of Diseases of the Eye and Ear, in the College of Physicians and Surgeons, New York.

CASE I.—*Paralysis of the Third Nerve probably from Syphilis.*

Gentlemen:—You will remember that at our first clinic I said that you must learn to look at the eye in the order in which the tissues occur. Here is a man who is forty years of age, and he presents himself here for the first time. Now, as you look at his face you will see that the left eye is closed, and that there is an eruption, looking somewhat like erysipelas, upon his forehead. The eruption extends from the central part of the forehead up over the frontal bone in a direction directly above the closed eye. On attempting to open the affected eye he does it partly by calling into exercise the levator muscle, and partly by raising the brow. As he opens it we find that the surface of the eye is free from injection. There does not seem to be any dread of light. He has not closed his eye voluntarily to exclude light, nor has he closed it either voluntarily or involuntarily for the purpose of being relieved from the irritant effect of the air. There is no redness, or lachrymation, or other evidence of superficial inflammation. We must look, therefore, to some other cause than dread of light or the contact of the atmosphere, for the tendency to keep the eye closed.

When we look still further we find that the cornea is as clear as the cornea of the other eye. So passing on, in our

observations, through the anterior chamber, we come to the plane of the iris ; and now as we compare the pupil of the left with the pupil of the right eye we find that it is at least twice as large. Having proceeded thus far the next step is to ascertain whether he has been using any drops in the eye, and I will ask him the question. It is possible that, having an eye affection, some preparation of belladonna, as atropia, has been prescribed. For it is not an uncommon thing for patients to borrow from other people a prescription for "sore eyes," as a sore eye is, in the popular sense, merely a sore eye ; and the public prescribers, at least, do not exercise sufficient discrimination in that direction. He has not used atropine, so far as we can judge from his statement; for he tells us that he has not had anything put into his eye except laudanum and salt water. We will take it for granted, then, at this stage of the examination, that the enlargement of the pupil is due to some other cause than the use of a mydriatic. We also notice that, besides being enlarged, the pupil is immovable, and the immobility might occur either from paralysis of the sphincter iridis or from adhesion of the posterior surface of the iris to the anterior capsule of the crystalline lens.

Still further we notice that the eye is immovable in certain directions, and we must next try to ascertain the cause of the immobility. It can be seen readily that the left eye is turned slightly outwards. There is a slight divergent squint. When we ask him to make an effort to adduct the eye, to bring into use the internal rectus muscle, he is unable to do it. The external rectus muscle retains its power, and he has no difficulty in abducting the eye. He is unable to turn the eye up, showing that the superior rectus and inferior oblique have lost their power. When asked to look down he turns the eyeball slightly downward and outwards and, at the same time, rolls the eyeball so as to incline the upper part of its vertical meridian slightly inwards. This shows that the inferior rectus does not act, and that the turning of the eye downwards is wholly due to the action of the superior oblique muscle. If we put a book into his hand and ask him to read with that eye he says that he cannot, that

the print is blurred. Thus we see that he has no power of accommodation, that his ciliary muscle does not act. We find, then, that there are seven muscles deficient in power : 1. The muscle which raises the lid, the levator palpebræ superioris ; 2. The muscle that turns the eye inward, the internal rectus muscle ; 3. and 4. The muscles that turn the eye upward, the superior rectus and inferior oblique ; 5. The muscle that turns the eye downwards, the inferior rectus ; 6. The muscle which contracts the pupil, the sphincter iridis ; 7. The muscle that controls the shape of the crystalline lens, the ciliary muscle. These seven muscles are affected, and that fact indicates to us that the *third* nerve is involved in what seems to be paralysis.

The next step is to ascertain the state of vision in the left eye. Tested by Snellen's test-types we find Right Eye, Vision $= \frac{20}{20}$, and Left, Vision $= \frac{20}{30}$. The next thing to be ascertained is whether or not the vision of the left eye can be brought up to the normal standard by means of glasses. We first try a weak *convex* glass, $+ \frac{1}{12}$, before the left eye, and he says that it confuses the vision. We next try a $+ \frac{1}{60}$, and he says that he sees still less distinctly. We now try a weak *concave* glass, and he says that it makes his vision worse than either of the other glasses. The affected, eye then, seems to be emmetropic.

We will next try a weak convex glass over the right eye, and he says he is not able to read the lower line. He has, therefore, no manifest hypermetropia. It is unnecessary to try this eye with concave glasses, for we know it is not myopic because with it he reads $\frac{20}{20}$, that is, he is able with this eye to bring parallel rays to a focus upon his retina. The presumption is, then, that both eyes are emmetropic, but an examination with the ophthalmoscope may reveal some latent hypermetropia.

The next step in our investigation of the case is, therefore, to make an ophthalmoscopic examination, and see whether, in connection with this paralysis of the third nerve, there is any deeper lesion.

I think you will find, in almost all of these cases of paralysis of the levator muscle of the lid, in which the

patient is unable to expose the eye to light, that there is a little diminution in the sharpness of vision due partly to disuse, and perhaps, partly to maceration of the corneal epithelium from constant contact with the moist closed eyelid. I think if we were to open this man's left eye a dozen times a day, and expose the surface of the eyeball to the effects of the light and air for some minutes, that he would soon have the vision restored to $\frac{20}{20}$; so quickly does the eye which is constantly closed decay in vision. Still you might look into such an eye and fail to see any lesion. If you should put your arm into a sling and carry it about in that way for no more than a single day, I think you would find that you had lost some power in that arm, and that when you called upon the muscles to perform their function there would be found an appreciable loss of power. Yet you might examine all the tissues of that arm with a microscope, or by any of the tests which the electrician would suggest and there would be found no lesion of tissue; nothing which could be traced to organic change. But there is a certain something which we are unable to describe, and which is involved in the idea of loss of power. So if we shut up an eye, if only for a few days, we may expect slight impairment of the acuteness of vision, without disease of the choroid, or retina, or other tissues.

Dr. Webster has examined the eyes of our patient with the ophthalmoscope and reports that both eyes are emmetropic; that is, there is no error of refraction; and that there is no lesion of the deep structures of either eye.

Now there are a few subjective facts which must be presented. This man says that some twenty-three or twenty-four years ago he had on his private parts "a kind of pimples" which he "supposed to be got from sitting down somewhere." He says that he never had the "clap," has never had any lumps in the groin, never took any medicine for the pimples, and has never had any breaking out on his skin except a few years ago, when he had a breaking out on the legs and arms. The eruption on his legs and arms preceded that on his face, which first appeared in the summer of this year. On examination we find, as you see,

several circular cicatrices upon the legs, especially upon the left leg. Some of them have a dusky color. There are scars on the left arm, the results of quite large sores which, he says, "first begun from rubbing the skin against a tree." He has never had sore throat, nor any kind of inflammation about the eyes. For the "breaking out" on his skin he has been taking medicine a number of years, but does not know what kind of medicine it was. He sleeps well, and does not suffer from headache nor pains in the bones.

There is a suspicious element in this history. I think the probability is that this man acquired syphilis when sixteen or seventeen years old, and that in this eruption on the forehead and in this paralysis of the *third* nerve we have two of the sequelæ. I should treat him upon that presumption, and should begin with mercurial inunction. For that purpose either the "blue ointment," or the oleate of of mercury may be used. I commonly resort to the officinal *Unguentum Hydrargyrum*, perhaps from force of habit. The method is, to have the ointment rubbed on the skin of both arms from shoulder to elbow, and in the axillæ and groins, night and morning. At each application about a drachm of the ointment should be used. The anointed arms may be protected by drawing over them a pair of old stocking legs, or wrapping around them a piece of old linen or muslin, and the patient should be instructed not to change his undershirt, or wash off the ointment so long as it is necessary to continue its use.

While doing this, I should also put the patient upon some salt of iron, see that he has a nutritious diet, diminish the amount of physical labor if he is engaged in active mechanical employment, care for his general condition, and, so far as possible, keep him in the open air. He should not take any form of alcoholic stimulant, but should have plenty of milk, beef, mutton, eggs, good bread, and fruit. The inunction should be continued to the point just short of producing ptyalism. The stomach should be reserved for food, and such tonics as quinine and iron. The muriated tincture of iron is a good preparation, and it may be associated with

quinine. I also advise that he expose the eye to light and air by holding open the lids for some minutes at least a dozen times a day.

(Two weeks later.)

This man was before the class two weeks ago to-day. The mercurial ointment has been used according to the directions then given ; at first, night and morning until a slight soreness of his gums was produced, and then, under the advice of his family physician, continued every other day until now. There are, as you see, physical evidences of quite rapid and decided improvement. His eye is now partially open, and the eruption on the forehead, above the eye, has made a remarkable change, in appearance, for the better. It is obvious from the general appearance of his face that something has been removed, that some burthen has been taken from the tissue-building power ; for he looks better and brighter than when you saw him a fortnight ago, and he has evidently gained flesh.

Of course, in these cases of constitutional syphilis, the general condition of the patient sometimes comes up with an elasticity which is astonishing under the influence of mercury when it is properly used ; and in the light of that fact I think the remedy is not entitled to the criticism which it has received.

The patient is not so much annoyed by double sight, and it is evident that he can lift the upper eyelid a little more freely than before. He is not well, but I think he is in a fair way to get well, and the question now is, what shall be done in the way of further treatment ? His teeth and gums are a trifle sensitive, but the edges of his tongue are not impressed with the forms of his teeth. There is no sponginess about the gums. There is no congestion of the mucous membrane in the immediate vicinity of the teeth, and I think, instead of abandoning the use of the ointment, or even diminishing the frequency of its application, we should give him another week of the application twice a day. The ointment will, therefore, be resumed, and continued twice daily until we see him again, unless the local physician should see unmistakable evidence of the undue

constitutional effect of the drug. Then after we shall have gotten the full effects of the mercury, he will be put upon the solution of iodide of potassium, an ounce of the iodide to an ounce of water, and five minims administered three times a day after his meals. These doses will be increased daily at the rate of two minims until we shall have reached the point of toleration, which may be at 180, 150, 140, 120, or even a less number of minims, for the entire day,—each minim of the solution representing a little less than a grain of the iodide of potassium. In other words, the iodide will be carried to the production of its toxic effect, and after that we shall, probably, use the *mixed treatment*, which consists of a grain of the protoiodide of mercury, half an ounce of the iodide of potassium, and four ounces of water, and of that the dose is a teaspoonful three times daily, after eating.

CASE II.—*Granulation following the Operation for Convergent Squint.*

This little girl was operated upon, at the clinic, three weeks ago, for convergent squint of the right eye. You will see, if you look at the corner of the eye, that there has sprung up from the scleral surface a little mass of granulation tissue. This sometimes occurs after operations for strabismus, especially when a suture is not applied that will draw the edges of the conjunctiva together. This granulation matter springs up from the connective tissue which lies upon the surface of the sclerotica, and it does no harm at all if it is not cauterized. It is much better to allow it to remain undisturbed until the granulation mass assumes a pedunculated form, and then snip it away, than to apply caustics as soon as it makes its appearance. The granulations, when they first appear, are in the form of a little mound; but almost immediately the granulation tissue first thrown out begins to undergo connective tissue changes, and contraction of the base of the mass ensues. If, then, you wait a few weeks, you will find that the mass has a pear-like shape, is attached to the surface of the sclerotic by a narrow peduncle, and will, perhaps, if nothing is done, soon drop off by a continuation of the process of shrinking.

But with a pair of forceps it can be raised easily, and snipped away with scissors.

If you apply an escharotic you will very probably excite an inflammation that may spread to the surrounding conjunctiva, give rise to a great deal of suffering, and perhaps, a chronic inflammatory process may be the result. By waiting until it becomes pedunculated, and then snipping it off with the scissors you will have no further trouble.

The granulation mass may occur where a suture has been applied in the conjunctiva after the operation; for the suture may give way, and from the exposed surface the growth may make its appearance.

(One week later.)

This little patient was operated upon four weeks ago for convergent squint, and, as was shown to you at the last clinic, a little mass of granulations has sprung up from the wound. I think it has now become sufficiently pedunculated so that, if she will submit, it can with safety be removed by means of the scissors. [The Professor here fixed the child's head between his knees, and the eyelids being held open by an assistant, he seized the granulation with a pair of forceps and, raising it up, severed its peduncle with a pair of scissors].

(Three weeks later.)

This little girl was operated upon seven weeks ago, for convergent squint, and you may remember that four weeks ago she was presented before you with a little mass of granulation tissue springing up from the wound, which instead of touching with caustic we allowed to assume a pedunculated form, and three weeks ago it was snipped off with the scissors. You can now see that the side of the eyeball looks normal, and you will also observe that there is a good degree of parallelism between the two eyes. The operation for the correction of the squint was performed by Dr. Webster, and I think you will recognize the result as a very good one.

CASE III.—*Granular Conjunctivitis, with Ulcer of the Cornea.*

The left eye of this little girl presents a deviation from

the normal standard. Her name is Duffy, and she is ten years of age. Since she was five years old, the mother says, Gracie has had weak eyes, which have been better and worse until last March when she became very much worse,—so much so that she was obliged to hold her head down, and was unable to bear the light. She then came to the Manhattan Eye and Ear Hospital where she has since been treated for granular lids and inflammation of the cornea. As I expose the cornea, an opaque spot can be seen near its centre, with numerous bloodvessels approaching it from the periphery of the cornea, evidently very superficial.

This condition of the cornea is a consequence of inflammation of the conjunctiva lining the upper eyelid. As we expose the inner surface of the upper lid you can see that the palpebral conjunctiva is rough, granular; and it is the constant rasping of the cornea by this roughened surface that has given rise to this local irritation and inflammation of the cornea, with loss of substance. There is a limited disease of the central portion of the cornea, a loss of substance, an ulcer, consequent upon chronic inflammation of the lining of the eyelid. When the conjunctiva which lines the lids is the seat of chronic inflammation it thickens, it proliferates, and when such a lid is turned wrong side out, its surface is seen to be covered with innumerable little eminences, or roughnesses, which sometimes look like cross-sections of bundles of muscular fibres. These little elevations are enlarged papillæ of the palpebral conjunctiva, proliferations of conjunctival connective tissue, so that a surface which should be smooth, and which should be in contact with the cornea without producing irritation, becomes rough, and acts upon the cornea like a file. Under such constant irritation we have cloudiness, and vascularity of this transparent membrane, and in this case, there is a superficial ulceration.

The treatment of this affection we will speak of in our next lecture.

PROCEEDINGS OF SOCIETIES.

"Etsi non prosunt singula, juncta juvant."

AMERICAN NEUROLOGICAL ASSOCIATION. *Third Day—Evening Meeting.*

The Association was called to order at 8:30 P.M., by President Miles.

Present—Drs. Miles, Spitzka, Putnam, Cross, Birdsall, Hammond, Gray, Seguin, Kinnicutt.

The Secretary said he had received the following letter from Dr. Hammond which he read :

NEW YORK, 1880.

To the Secretary of the American Neurological Association :

Dear Sir :—I hereby offer to the American Neurological Association the sum of five hundred dollars, to be awarded by a Committee of the Association, at the meeting in 1882, to the author of the best essay that may be written on *The Functions of the Optic Thalamus.*

I desire this prize shall be open to Neurologists in all parts of the world, under such conditions as the Committee may determine upon. Should no essay be deemed worthy of receiving it, I will continue the offer till the session of 1883.

I also request that the Committee may be appointed by the President at the present session of the Association, and I should like to be allowed to confer with the Committee before the final announcement of this offer in regard to certain points of inquiry.

Yours sincerely,

WM. A. HAMMOND.

In accordance with the motion of Dr. Hammond, the Secretary proceeded to read the resolutions of Dr. Gray on Asylums, giving the members of the Association an opportunity to pass judgment upon the successive sections thereof.

Whereas, In 1876 and 1877 a series of papers were published by an eminent alienist, Dr. H. B. Wilbur, himself at the head of a State institution, and the defects of our American asylum system clearly demonstrated ; and

Whereas, In the winter of 1878–1879 attention was called