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POINTS OF INTEREST TO THE GENERAL PRACTITIONER, DEDUCTED FROM 5,409 CASES OF DISEASES OF THE EYE, EAR, THROAT, AND NOSE, SEEN IN PRIVATE PRACTICE, 1887–'88.

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Points of Interest to the General Practitioner, Deducted from 5,409 Cases of Diseases of the Eye, Ear, Throat, and Nose, seen in Private Practice, 1887 and 1888.*

In this report I shall speak only of work done in my office (not of outside, hospital, or college work) for the years 1887 and 1888, and endeavor to draw from it such conclusions as may be of importance to the family practitioner.

From January, 1887, to January, 1889, I have seen in my office 5,409 cases, divided as follows: Diseases of the eye, 3,600; diseases of the ear, 681; diseases of the nose, 606; diseases of the throat, 522. Diseases of the eye were divided as follows:

Conjunctiva	752
Cornea	496
Iris	100
Lens	154
Ciliary body	9
Sclera	10
Optic nerve and retina	108
Muscles	180

*Read before the Medico-Chirurgical Society.

Lids	274
Choroid	85
Vitreous	55
Globe	43
Orbit	13
Errors of refraction	1,239
Presbyopia	75
Miscellaneous	7
Total	3,600

I shall, for convenience, consider first the ear cases, and hope I may not make a useless appeal to the family practitioner when I beg of him to let the aurist see at an early day his acute cases of inflammation of the middle ear. It is still the practice of the laity to call the family doctor first to see such cases. Of acute catarrh of the middle ear, and acute suppuration of the middle ear, I saw, during the two years, but forty-four cases; of chronic catarrh and chronic suppuration of the middle ear I saw, in the same length of time, three hundred and sixty-nine cases. I believe the experience of aurists will justify the assertion that if we could see cases of acute inflammation of the middle ear in time, chronic cases would be rare indeed as compared with

their present number. Many cases of acute catarrh of the middle ear appear to get well under the simplest treatment; the pain disappears, and the hearing is apparently restored; but the true after-result is that each attack leaves the patient a little more deaf, leaves changes in the throat, nose (disease of which is the most common cause), eustachian tube, and middle ear, which render them many more times liable to a series of attacks, to be followed by a chronic inflammation of the parts, with tinnitus, vertigo, and hopeless deafness; or probably a chronic suppuration of the middle ear, with polyp, disease of the mastoid cells, septicemia, pyemia, facial paralysis, abscess of the brain, and death. A recent writer says fifty per cent of the cases of abscess of the brain depend upon suppuration of the middle ear. I believe the gentlemen present will agree with me when I state that it is exceedingly rare to have any acute inflammations of the ear become chronic when seen early and properly managed.

Of my ear cases there are on my record-book but six in which the mastoid was involved. This small number is accounted for

by the fact that they are usually seen as house patients, or, rather, at their homes, and I have consequently kept no record of them; of these six, four were disease of the bone, that is, necrosis. They all got well. I have, fortunately, never had a death from this cause. I have had to open the bone several times, and had Dr. W. O. Roberts do it for me once in a very severe case.

Of the diseases of the throat, sixty-eight were acute inflammation of the tonsil, some follicular, some suppurative, etc. I believe most of these to have been rheumatic in origin, many of them being secondary to improper feeding, such as excess of sweets, etc. I found hot applications, both internal and external, with the salicylates and turpentine, gave the best results in their management. I find the old "Brown gargle," with salicylate of soda added, and with eucalyptol-water substituted for the distilled water, the best for people to keep on hand when subject to frequent attacks of acute follicular tonsillitis—this is also good for those subject to attacks of quinsy—but, in addition, I have them carry with them pellets of atropia sulphate and mercury proto-

iodide, to be taken immediately on the first symptom; and by these, with proper feeding and hygiene, prevent and abort numerous attacks of this painful affection.

Of hypertrophy of the pharyngeal tonsil and adenoid vegetations in the pharynx, I saw twenty-nine cases. These are the most frequent causes of mouth breathing, with all its bad effects. Surgery alone comes to my relief in these cases, but it must be followed by active constitutional and hygienic treatment.

Of diphtheria I have seen many cases in the last two years, but only four cases in the office. In this disease I think the best local application, both theoretically and practically (when it can be gotten there), to be hydrarg. bichlo., say from one grain down, to muriate tinct. iron, one ounce: one grain to one ounce makes it 1–500.

Of cases of asthma depending upon disease of the mucous membrane and submucous tissue of the posterior part of the nose I found a good many, and found treatment directed to that part of the economy relieved many cases of long standing. These cases can be differentiated by the local use of cocaine posteriorly.

Of "hay-fever," the name by which a peculiar periodic affection is most commonly known, I saw twenty-eight cases, a majority of them getting relief under treatment. I found a majority of them needed treatment each year, and that the most favorable time for treatment is just before or at the first part of the attack. As a local application, to be used at home, I give cocaine (alkaloid), and menthol, and, to prevent the drying effect of the cocaine on the mucous membrane, I add oil gaultheria and oil of eucalyptol, and sometimes, for its control over venous congestion, hamamelis, to the vaseline or vaseline oil. For engorgement of the nasal tissue, cases of which are quite numerous, I use the galvano-cautery, endeavoring, when possible, to reach the submucous tissue, where the difficulty is located, through as small an opening as possible, so as to leave a small cicatrix. For the same reason, in these cases, where ridges of bone spring from the septum and extend out far enough to produce stenosis of the nose, I have had made burs with long shanks, to be attached to the dental engine, and with these go under

the mucous membrane, drill out the bone to a thin shell, then crush it in, thus preserving the periosteum, and leaving, as I stated above, an exceedingly small cicatrix. I have neither seen nor heard of any one else practicing this method. It is much less painful than the Bosworth saws or any other procedure I have seen practiced, and is much more effectual.

In the three thousand six hundred eye cases there has been much observed which is of great interest to the family doctor. In diseases of the lid and conjunctiva we have a prolific cause of headache; simple hyperemia of the conjunctiva is a most common cause: it too, on the contrary, is the result of disease of many of the distant organs, for instance, the stomach, liver, and uterus. In diseases of the cornea and iris we have an index to many of the most common and most obstinate general diseases. By these we can frequently judge of the effect of our treatment in either acquired or congenital syphilis. I have recorded, in the last two years, twenty-six cases of inherited syphilis showing in the cornea first. I have on record twenty-seven cases in

which the external and internal muscles of the eye were involved, being the first symptom noticed in beginning locomotor ataxia. I had at one time fourteen cases of this affection under observation. Besides these, I had several cases in which atrophy of the optic nerve was the first symptom to attract attention; one case in which the first symptom was a periodic paresis of the abductors of the vocal chords; eighty-one cases of convergent squint, and eleven cases of divergent squint. Muscular insufficiencies I found to be an extremely common cause of headache and vertigo. There were seven hundred and fifty-two cases of disease of the conjunctiva. Over one third of the occupants of our institutions for the blind lose their vision from a disease of the conjunctiva, "ophthalmia neonatorum," the management of which is exceedingly simple. I have yet to lose an eye from this disease when I see it before the cornea is involved. Cleanliness by means of carbolized hot water and surgical cotton, glycerole of tannin to clean out the *cul-de-sacs*, and nitrate of silver, followed by salt water, and a weak solution of atropia sulph., is my routine

treatment. It all amounts to nothing without cleanliness. The nitrate of silver is both antiseptic and protective; it protects by coagulating albumen. I had one hundred and fifty-four cases in which the crystalline lens was involved. Opacity of this body is frequently the first indication we have of diabetes.

The iris alone was involved in one hundred cases. This little membrane or diaphragm, perforated in or near its center by the pupil, is consulted more often than any other part of the eye by the general practitioner. One chapter "On the Pupil in Health and Disease" in a small book on "Diseases of the Eye," by Swanzy, is worth many times the price of the book. Pages and pages can be profitably written and read concerning this small membrane alone. Swanzy says as follows:

"Chloroform in the first or exciting stage of anesthesia, according to the investigations of Westphal, Budin, and Hirschberg, stimulates the pupil-dilating center, and in the second stage gradually reduces the excitability of this center, until finally it is completely paralyzed, so that no form of

stimulation causes any dilatation. Following on this is a still further contraction to a pin-hole pupil, due to stimulation of the pupil-contracting center. Should the inhalation of the anesthetic be longer continued, a dilatation of the pupil often suddenly takes place, and this indicates paralysis of the pupil-contracting center, and the most serious consequences for the life of the patient."

"The size of the pupil in disease (myosis) may be caused by a diseased process irritating the pupil-contracting center or fibers (the irritation myosis of Lesser), or by one causing paralysis of the pupil-dilating center of fibers (the paralytic myosis of Lesser), or by a combination of both. Either cause alone would produce a medium myosis; a combination of the two would give a maximum myosis."

"Irritation myosis, according to Lesser, is not usually increased by the stimulus of light, nor on convergence of the visual axes, nor does it diminish in the shade. Mydriatics dilate such a pupil widely, myotics contract it to maximum. In paralytic myosis the pupil reacts well to light and on con-

vergence, but does not dilate on application of sensitive or psychical stimuli, or with co-ordinated motions. Mydriatics dilate such a pupil only partially, while myotics contract it to maximum. In maximum myosis every reaction is wanting, strong mydriatics alone producing a medium dilatation.

"Irritation is found in: (*a*) The early stages, at least, of all inflammatory affections of the brain and its meninges, in simple tubercular and cerebro-spinal meningitis. When in these diseases the medium myosis gives place to mydriasis, the change is a serious prognostic sign, indicating the stage of depression with paralysis of the third nerve. (*b*) In cerebral apoplexy the pupil is at first contracted, according to Berthold, who points out that this contraction is a diagnostic sign between apoplexy and embolism, in which latter the pupil is unaltered. (*c*) In the early stages of intra-cranial tumors situated at the origin of the third nerve or in its course. (*d*) At the beginning of an hysterical or of an epileptic attack. (*e*) In tobacco amblyopia, probably from stimulation of the pupil-contracting center by the nicotine. (*f*) In persons following certain

trades, as the result of long-maintained effort of accommodation (watchmakers, jewelers, etc.), the pupil-contracting center being subject to an almost constant stimulus. (*g*) As a reflex action in ciliary neurosis; consequently in many diseased conditions of those parts of the eye supplied by the fifth nerve."

"Paralytic myosis occurs in spinal lesions above the dorsal vertebræ, for example, injuries and inflammations, especially of the chronic form. The contracted pupil occurring in gray degeneration of the posterior columns of the spinal cord has long been known as spinal myosis. In the simple form of this myosis the pupil has but a medium contraction, and reacts both to light and on convergence. This condition is found in the early stages alone, when the disease has attacked only the cilio-spinal center, or higher up as far as the medulla oblongata; later on, when Meynert's fibers become engaged, we have the Argyll Robertson pupil." "The very minute pupil often seen in tabes dorsalis is probably due to secondary contraction of the sphincter pupillæ. Argyll Robertson first pointed out, that in tabes dorsalis the

pupil, although contracted and responding to light but slightly or not at all, contracts on convergence of the visual axes (or accommodation). He explained this phenomenon as being due to paralysis of the cilio-spinal nerves, which he therefore regarded as the nerves supplying the sphincter iridis. Raehlmann points out that the myosis and the motor phenomenon are not directly connected; for it sometimes happens that pupils which do not react to light, and do contract on convergence, are not habitually contracted, and may even be somewhat dilated. The two symptoms are, no doubt, often present together in tabes. The myosis is a sign, and an important one, of disease of the posterior columns, while the defective reaction to light with retained contraction on convergence indicates disease at some distance from the spinal cord, namely, in Meynert's fibers; and this is probably the correct explanation of the Argyll Robertson symptom. Disease in Meynert's fibers, however (as also disease of the optic nerve), may be in direct connection with disease of the cord, Stilling having found fibers passing directly from the optic tract into the crus

cerebri. Raehlmann and Drouin regard myosis as one of the earliest symptoms of tabes, while Vincent does not. Raehlmann also thinks that, perception of light being present, if the pupils do not react to light, while they do contract on convergence, the symptom is usually one of serious central disease. Paralytic myosis is also found in general paralysis of the insane. In acute mania the pupil is usually much dilated, and when this mydriasis is changed for myosis, approaching general paralysis may be prognosticated. Myosis, following on irritation mydriasis, is also found in myelitis of the cervical portion of the cord. In bulbar paralysis, if paralytic myosis occurs, the disease is probably complicated with progressive muscular atrophy, or with sclerosis of the brain and spinal cord."

"Hirschler states that he has frequently noticed a contracted pupil in alcoholic amblyopia, due probably to an affection of the medulla oblongata, possibly fatty degeneration. Myosis may also be due to paralysis of the cervical sympathetic, which may result from injury, from pressure of an aneurism of the carotid, innominate or aorta, or

from pressure of enlarged lymphatic glands. In apoplexy of the pons varolii myosis is present, but it is not yet certain whether it is an irritation myosis or a paralytic myosis."

"*Mydriasis* may be caused by a diseased process giving rise to irritation of the pupil-dilating center or fibers, or by paralysis of the pupil-contracting center or fibers."

"The former is termed irritation (or spasmodic) mydriasis, and, according to Lesser, is characterized by a moderately dilated pupil, contracting somewhat to light and on convergence, but not dilating on sensitive or psychical stimuli, easily dilated to maximum by mydriatics, but with difficulty contracted to maximum by myotics. The latter is called paralytic mydriasis, and in it there is a moderately dilated pupil reacting to sensitive and psychical stimuli. The reaction to light and on convergence varies according to the seat of the lesion. If the latter lie between the iris and pupil-contracting center, the direct and consensual reaction to light is wanting, as is also the associated motion on convergence of the visual lines. But if the lesion lie between

the retina and the pupil-contracting center, the direct contraction to light is wanting, but the consensual contraction and that on convergence retained. In either case the pupil can be dilated to maximum by mydriatics, but not contracted more than to medium size by myotics. Irritation of the pupil-dilating center and paralysis of the pupil-contracting center, existing simultaneously, give rise to maximum mydriasis. In it there is absolute immobility to stimuli of all kinds except strong myotics, which may bring it back to the normal size."

"Irritation mydriasis occurs: (*a*) In hyperemia of the cervical portion of the spinal cord and in spinal meningitis. (*b*) In the early stages of new growths in the cervical portion of the cord. (*c*) In cases of intra-cranial pressure, according to Raehlmann, although Lesser points out that these may also give rise to paralytic mydriasis. (*d*) In the spinal irritation of chlorotic or anemic people after severe illness, etc. (*e*) As a premonitory sign of tabes dorsalis. (*f*) In cases of intestinal worms, owing to the stimulation of the sensitive nerves of the bowel, and sometimes in other forms of in-

testinal irritation. (*g*) In psychical excitement, for example, acute mania, melancholia, progressive paralysis of the insane (often then unilateral with myosis in the other eye)."

"Unilateral mydriasis occurring at short intervals, now in one eye and now in the other, is, according to Von Graefe, a premonitory sign of mental derangement. Von Graefe observed madness in the form of *manie des grandeurs* to come on some months after the occurrence of this symptom."

"Paralytic mydriasis may be due either to a paralysis of the pupil-contracting center, or as the result of the stimulus not being conducted from the retina to that center. It may be found under the former circumstances: (*a*) Sometimes in progressive paralysis where at first there was myosis. (*b*) In various diseased processes at the base of the brain affecting the center of the third nerve. (*c*) In a later stage of thrombosis of the cavernous sinus. (*d*) In orbital processes which cause pressure on the ciliary nerves. (*e*) In glaucoma. (*f*) In cases of intra-ocular tumors which have attained a certain size."

"In paralytic mydriasis due to non-transmission of the stimulus of light to a healthy pupil-contracting center and nerves, contraction of the pupil will take place only on convergence of the visual lines. The same condition of pupil will be found if the lesion lie in the course of Meynert's fibers, although vision may be normal. If the lesion lie in the center of vision (angular gyrus, etc.), or in the course of the fibers connecting this center with the corpora quadrigemina, although absolute blindness exist, the reaction of the pupil to light will be perfect. Paralytic mydriasis due to non-conduction of light stimulus is found in most cases of optic atrophy."

Of diseases of the optic nerve and retina, I saw in the two years one hundred and eight cases. Three cases of embolism of the central artery of the retina, diagnosed, enabled me to prognose the possibility of embolism in other and more dangerous portions of the economy.

Inflammation of the optic nerve and retina, with fatty degeneration of and hemorrhages into the latter, enabled me to diagnose serious disease of the kidneys, and prognose

death within twelve months. Two cases of neuro-retinitis albuminurica enabled me to diagnose Bright's disease, which did not show in the urine for some months afterward, both cases dying in less than eight months of Bright's disease of the kidneys.

Thirty-two cases of atrophy of the optic nerve in its different stages enabled me to give the connecting link in the diagnosis of many obscure diseases of the brain. Add to these, cases of hemiopia or hemianopsia and thirty-six cases of optic neuritis and neuro-retinitis, a majority of which were the first symptoms of disease of the brain and cord noticed, their importance can be realized.

How many cases of cerebral hyperemia, with its symptoms, nausea and vertigo, cerebro-spinal irritation, chorea, etc., are represented in twelve hundred and thirty-nine cases of errors of refraction, my record-book does not show. As a cause of these and other more serious affections, they are most common. Headaches from this cause, we all know, are exceedingly common. Such headaches often have no regular time for coming, no regular time for cessation; often have no symptom by which the patient's attention

can be called to the eye as a cause. Only to-day I had a lady in my office from Winchester, Ky., who has for years been an intense sufferer from headaches, sometimes every two weeks, and again every week or every four weeks, who had never suspected her eyes as being the cause. While treating her daughter, she commenced boasting about being forty-seven years of age and having never needed spectacles. Her vision was only ⅔ of perfect. She had a high degree of mixed astigmatism. Her near-sighted meridian had enabled her to do without glasses for reading. She was much surprised to see how glasses improved her vision. I believe they will relieve her headaches. This is only one of many.

Of these 1,239 cases of errors of refraction, 571 were hypermetropia, 238 hypermetropic astigmatism, 146 comp. hypermetropic astigmatism, 136 myopia, 49 myopic astigmatism, 76 comp. myopic astigmatism, 23 mixed astigmatism.

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