

from the hospital, October 17, 1896, without deformity, without lameness and in excellent condition.

Under strict aseptic precautions, given a young, healthy patient of good habits, I do not think I should hesitate a moment in deciding to operate. With operation the results are better, convalescence speedier, patient more comfortable; and the surgeon is saved from much condemnation.

### A CASE OF TRANSPPOSITION OF THE VISCERA.

BY H. F. VICKERY, M.D., BOSTON.

MARCH 25, 1896, Mr. W. C. T., twenty-seven years old, a clerk in Boston, was sent to me by Dr. J. E. Clark, of Medford. The family history was excellent. With regard to the previous health, it was stated that he had pneumonia when one year old, and also certain children's diseases, but recovered well from all of these. Two years before he visited me, having a slight cold he presented himself to Dr. Clark, who found the condition about to be reported. With regard to his present health, Mr. T. said that it was excellent, and that he had very little, if any, dyspnea. For instance, he could climb two or three flights of stairs without discomfort. He did say, however, that he found running to "hare and hounds" trying, which would hardly be regarded as proof of unusual shortness of breath. Otherwise there were no symptoms of disease. The reason of his coming was that he desired to have more than one doctor to support him in an application for life insurance, fearing that otherwise he might be unjustly rejected.

The result of the physical examination was that the heart, liver and spleen were found to be transposed from their normal positions to the opposite side of the body respectively. On inflation, the stomach was also found lying toward the right side instead of the left side; and air injected per anum distended the colon on the right, as if the descending colon were upon that side.

A year later, the fluoscope having come into use, the patient was examined with the x-ray, through the courtesy of Mr. Dodd, at the Massachusetts General Hospital, and the heart was seen lying upon the right side, and the great shadow of the liver was seen upon the left side; otherwise the fluoscope showed nothing distinctly. The measurements of the limbs were as follows: right arm, at the belly of the biceps, 9½ inches; left arm, 9 inches; right leg, 17½ inches; left leg, 17 inches. The left testicle, as in other men, hung lower than the right, and the patient was right handed.

It may be said, in conclusion, that Mr. T. obtained life insurance without any difficulty. The only chance for doubt as to the correctness of the opinion that this is a case of transposition of the viscera might be raised by the statement that he had pneumonia when he was a year old. It might be objected that this was perhaps a pleurisy which on recovery had drawn the heart over to the right side; but the patient, as above stated, had very little, if any, dyspnea. The function of both lungs was found to be excellent upon examination; and furthermore such an hypothesis could not account at all for the position of the abdominal organs, which seemed to be very clearly transposed, as well as the thoracic.

## Medical Progress.

### RECENT PROGRESS IN OPHTHALMOLOGY.

BY MYLES STANDISH, M.D., AND WILLIAM D. HALL, M.D., BOSTON.

(Continued from No. 1, p. 14.)

#### CONJUNCTIVITIS BOTRYOMYCOSA.

FABER<sup>12</sup> noticed between the swollen papillæ of an intensely inflamed conjunctiva of a farm-hand some small grayish granules, which were found to contain small corpuscles arranged in longish clusters, which microscopically were proven to be botryomyces, a fungus resembling actinomyces and which up to this time has been found only in the horse.

#### CLASSIFICATION OF INFECTIOUS CONJUNCTIVAL DISEASES.

Coppez<sup>13</sup> compares the ancient classification resting upon anatomy and symptomatology with the more modern, having for a basis etiological and bacteriological data. He mentions

- (1) Gonococcus as causing (a) classical purulent; (b) catarrhal; (c) granular; (d) pseudo membranous.
- (2) Bacillus of Weeks: (a) classical catarrhal; (b) pseudo-membranous.
- (3) Pneumococci: (a) catarrhal; (b) phlyctenular; (c) purulent; (d) granular; (e) pseudo membranous.
- (4) Staphylococci: (a) catarrhal; (b) purulent; (c) phlyctenular; (d) pseudo-membranous.
- (5) Streptococci: (a) catarrhal; (b) purulent; (c) with glands.
- (6) Klebs-Löffler: (a) classical catarrhal; (b) pseudo-membranous.

He advocates a purely etiological classification, as offering advantages of prophylaxis and the application of serum therapy, but recognizes the difficulties in application.

For a purely anatomical classification he offers

- (1) Catarrhal: gonococcus, diplo-bacillus, staphylococcus, streptococcus, pneumococcus, Klebs-Löffler.
- (2) Purulent: gono-staphylo-strepto-pneumococci.
- (3) Granular: gono-pneumococci.
- (4) Phlyctenular: pneumo-staphylococci.
- (5) Pseudo membranous: gono-staphylo-strepto-pneumococci, bacillus of Löffler and Weeks.

At present the older classification is rather better as the bacteriological data may be joined in each case.

#### THE PATHOGENY OF GLAUCOMA.

Sulzer<sup>14</sup> interprets the appearances of the fundus in one case which he was able to examine eight days after the sudden onset of glaucoma fulminans, as denoting a complete arrest of the retinal circulation. Although he admits that a glaucomatous attack as a sequel to an embolus of the central artery or an attack of glaucoma occurring synchronous with an embolus would present a similar complex, still he considers, as increased intra-ocular tension always retards or stops the current of blood in the retina, that in this particular case there is to be admitted a relation between cause and effect. Inasmuch as Ludwig has demonstrated that the pressure of the saliva in the excretory ducts can exceed the pressure of the artery

<sup>12</sup> Conjunctivitis botryomycosa, Rep. Soc. Néerlandaise d'Ophthal., December, 1896.

<sup>13</sup> Essai de classification des conjonctivites infectieuses, Rep. Soc. Belg. d'Ophthal., December, 1896.

<sup>14</sup> The Pathogeny of Glaucoma, Ann. d'Ocul., February, 1897.

which supplies the gland, it is possible to imagine the intra-ocular pressure exceeding the arterial pressure of the retinal vessels, on account of the influence exerted upon the vessels of the ciliary body by the secretory fibres of the first branch of the third.

He would classify glaucoma according to predisposing causes as circulatory, vascular and nervous, all being related by vascular degeneration, primitive in the second, and secondary in the other two, where it depends upon interference with the arterial circulation produced in the first class by interruption of the equilibrium between the intra-ocular tension and the arterial tension and in the third class by nervous influence. The disturbances circulatory, degenerative and nervous are interdependent both producing and reinforcing one another. The circulatory disturbance plays the most important part in all the varieties. The excavation he does not consider to be a mechanical result of the increased tension but is produced principally by a partial degeneration of the myeline fibres of the papilla, upon which degeneration depends the paralysis of the corresponding peripheral elements of the retina, produced in turn by the retardation of the circulation and secondarily by insufficient nutrition of the tissue of the papilla depending equally upon the insufficient arterial supply. Thus weakened the papilla can yield still more to the increased tension.

#### INFANTILE GLAUCOMA.

Gros<sup>15</sup> finds the condition to be characterized by increased tension, distention of the globe and excavation of the papilla; sometimes also hypermetropia. The course may stop spontaneously with preservation of some vision. The cause is uncertain although heredity may play an important part. This symptom complex may be supposed to depend upon some obstruction of the canals of excretion or to an arrest in the development of these canals and this is why the obliteration of the angle is not constant. Excavation is very frequent but atrophy only appears at a late stage. The prognosis is grave and interference by operation should be early, which may be either an iridectomy or a sclerotomy. The larger the globe, the smaller the incision and, in case there is much distension, an iridectomy is contraindicated.

#### RESECTION OF THE CERVICAL SYMPATHETIC.

Jonnesco's paper<sup>16</sup> is a description of five of the six cases in which he has practised a total and bilateral resection of the cervical sympathetic, twice being for exophthalmic goitre, twice for epilepsy and once for chorea with epilepsy. He was induced to attempt this intervention in the first place by the attempts of others in this direction. In 1889 Alexander did bilateral and complete resection of the superior cervical ganglion; Kummel has done unilateral resection of the same; Vacksh ligated *en masse* the vertebral artery and vein before their entry into the bony canal in order to tie the sympathetic vertebral plexus which accompanies them, and section of the trunk of the sympathetic beyond the superior ganglion. Bogdanik in 1893 resected the middle cervical ganglion, or if this failed the excision of that part of the trunk of the sympathetic found at the habitual seat of the ganglion. Jaboulay, in 1895, practised section of the cervical sympathetic in an epileptic to modify the cerebral circulation, and

in 1896 isolation of the middle cervical ganglion by cutting four or five efferent branches, then he cut the trunk of the sympathetic below the ganglion to the right and left. It was suggested in the second place by the lesions of the sympathetic found in epileptics (hyperemia), likewise found in Basedow's disease. As a cause of this latter disease autopsies have shown lesions affecting the nerve trunk and the ganglions, preferably the inferior and middle, consisting of atrophy of the nerve cells. The unsatisfactory results from these attempts and the sufficiently constant lesions have suggested to him the more radical operation. Then follows a very complete description of the various steps of the operation and a short *résumé* of the five cases. He summarizes as follows: total and bilateral resection of the cervical sympathetic can be undertaken without fear of ultimate disturbance; the operation is not difficult, and can be supplemented by ligature of the thyroids.

#### REMOVAL OF THE THYROID.

In the discussion which followed the report of a fatal case by Lejars, Tillaux<sup>17</sup> advised operating only when the symptoms were due to a tumor included in the gland, and then to leave the gland as much as possible intact, thus avoiding myxedema, while Poncet, on account of the danger of the operation, is in favor of nerve and ganglion resection.

#### ACTION OF LIGHT UPON THE RETINA.

The experiments of Pergen<sup>18</sup> were made upon fishes, a part of which were decapitated in darkness after having remained in this condition for forty-eight hours; the others were decapitated after exposure to daylight for some time. Immersion in five-per-cent. nitric acid then followed for twenty-four hours.

The results obtained may be summarized as follows: in the dark the retina is thicker than in the light as a result of the extension of the rods and cones, and on account of the migration of the pigment from the epithelium. Under the influence of light the distal part of the epithelium approaches the external limiting membrane, the rods and cones contracting. In the light the nuclein of the nuclei diminished in all the layers except the molecular. In darkness a portion of the protoplasm which surrounds the nuclei of the rods and cones passes across the external limiting membrane, which re-enters under the influence of light when the nuclein diminishes. The external granular layer may be considered as constituting a reserve of protoplasm and nuclein bearing direct relation to the functioning of the rods and cones. Their contraction is immediate, the migration of the pigment is slower.

In a second series, in which the fishes had remained in the dark and were then exposed to the spectrum, it was found that the migration is less in the red but more in the blue. The contraction is stronger in the green and feebler in the blue. The migration and the contraction is the same in both if only one is irritated, while, on the contrary, the diminution of nuclein seems to take place independently in each eye. No color affects the cones to the exclusion of the rods or *vice versa*, as regards the nuclein. The same elements perceive all colors, contrary to the classical theories demanding three sets of fibres. At the time of the diminution of

<sup>15</sup> *Étude sur l'hydrophthalmie ou glaucome infantile*, Paris, 1897.

<sup>16</sup> *La Résection totale et bilatérale du sympathique cervical*, Ann. d'Oc., March, 1897.

<sup>17</sup> *Removal of the Thyroid for Exophthalmic Goitre*, Ann. d'Oc., March, 1897.

<sup>18</sup> *Action de la Lumière sur la Retine*, Annales de la Soc. Royale de Sci. de Brux, 1896.

nuclein the protoplasm becomes less affected by basic colors. In the light of present knowledge the retinal sensation of color may be considered as a complex of phenomena, of which the migration of pigment, the alterations of erythropsine, the contraction of the rods and cones, the diminution of the nuclein and the modifications in the protoplasm are the more easily demonstrable. The diminution of the nuclein, being principally noticed in nuclei of the rods and cones, offers a new proof of the localization of perception of light and color in these elements. The appearances in a fish exposed to the Röntgen rays for a half-hour were negative; the same as in total darkness.

#### CORNEAL CHANGES IN DIPHTHERIA.

Coppez<sup>19</sup> states that the loss of the cornea in conjunctivitis with membrane has long been considered to be due to necrosis. Sourdille has maintained that through a solution of continuity, as, for example, an ulcer, the microbes obtain an entrance, multiply and cause destruction of tissue. Lack of nutrition when the membrane has reached the limbus can also prove fatal. In slight and purely tarsal forms something else is necessary. The toxin can penetrate and alter the nutrition of the membrane. This can take place either by the lymphatic channels or through the eroded surface or by dialysis in the presence of a scar. Although it is not known whether the antitoxin acts chemically or through the agency of the cells, he suggests introduction of it beneath the conjunctiva of the bulb, and supports his claim by deductions from experiments upon animals.

#### MENINGITIS FOLLOWING ENUCLEATION.

Lapersonne<sup>20</sup> calls attention to the frequency with which the pneumococci are found about the eye when in a state of inflammation, and describes an acute basal meningitis following enucleation in which the infection was propagated along the lymph channels of the nerve sheath. Inasmuch as the antiseptic agents at hand do not attack the capsule, he advises a preliminary use of some alkaline substance which will dissolve this capsule, and considers a sterilized solution of purified hypochlorite of lime as being most suitable, as it is also well borne by the conjunctiva.

#### CILIARY BODY EXTRACT.

Dor<sup>21</sup> describes a severe case of sympathetic ophthalmia, which, in spite of enucleation of the other eye and a prolonged and energetic treatment, went on to almost total blindness. The globe was highly injected and painful and notably diminished in volume. After a two months' course of injections and instillations of an extract prepared from the ciliary body of an ox, the tension became almost normal, and vision returned to a degree that the patient could go about alone. Dor offers the following in explanation. Since the aqueous humor in passing from the ciliary processes leaves behind the fibrinogen and nearly all the albumin contained in the serum whence it originates, and as in pathological conditions, on the contrary, the fibrinogen and albumin continues on into the general circulation of the eye, there ought to be in the cells covering the ciliary processes a chemical substance which would retain

<sup>19</sup> Des altérations cornéennes dans la diphtérie conjonctival et de l'injection locale du serum, Soc. Franc. d'Ophthal., Mai, 1897.

<sup>20</sup> Méningites à pneumocoques après l'enucléation, Soc. franc. d'Ophthal., Mai, 1897.

<sup>21</sup> L'extrait de corps ciliaire de bœuf, Soc. Franc. d'Ophthal., Mai, 1897.

the albumin. As this substance is wanting in diseased eyes, it should be sought for in the animal eye and introduced into the human eye. He recommends the maceration of 40 per cent. ciliary bodies in a 1-500 aqueous solution of resorcin for forty-eight hours.

(To be continued.)

## Reports of Societies.

### THE NEW YORK ACADEMY OF MEDICINE. SECTION IN ORTHOPEDIC SURGERY.

MEETING of November 19, 1897.

#### DISEASE AND DEFORMITY OF THE TIBIA.

DR. S. KETCH presented a patient with an unusual deformity of five years' duration. The patient was a girl twelve years old. He had seen her for the first time one week ago. There was anterior bowing of the right tibia and some eversion of the foot. The bone was three inches longer than that of the well leg and greatly thickened. The circumference of the leg was one and one-half inches larger than on the well side. The child's general condition was poor, the result probably of pain, which had been a feature of the history. The skiagraph showed a thickened tibia with some irregularities in the enlargement and an almost complete disappearance of the epiphyseal line due to pressure. He had traced cases resembling this in many features to syphilis, but here there were no signs of infection and history of transmission.

DR. W. R. TOWNSEND said that he had seen a somewhat similar case in which the extra heat of the limb had led to a diagnosis of osteitis. The diagnosis was wrong, however, as at the end of five years, the bone was found to be sarcomatous, and amputation was done. He thought that the question of sarcoma should not be overlooked in considering the treatment of the present case. The remarkable deformity of the bone had some resemblance to a bowing of a syphilitic tibia, but it was not the *lame de sabre* described by Fournier.

DR. H. L. TAYLOR said that the strong anterior curvature of the tibia, the enlargement throughout the shaft, the slight nodes on the surface and the elongation of the bone pointed to syphilitic osteitis.

DR. J. TESCHNER had noticed that the swelling and tenderness were more marked on the anterior aspect of the bone, where there was probably pus. These signs and the localized heat indicated an inflammatory action and led him to believe that there was necrosis and that a sequestrum had produced the thickening and enlargement.

DR. R. WHITMAN said that the skiagram showed that the entire bone was involved. He did not think it was sarcoma, but rather a case of diffuse osteitis which might have been of syphilitic origin. There might also have been a fragment of necrosed bone within the shaft which kept up the chronic inflammation with continuous enlargement of the bone.

DR. V. P. GIBNEY said that he would treat the case as one of abscess of the tibia. Opening the medullary canal would probably reveal several abscesses. In any case it would not do any harm to operate in this way, even if the case were one of sarcoma. He had operated for multiple abscess of the