5. It is probable that excitement, fainting, etc., will not be so readily produced by psicaine as by cocain; it may therefore be useful in susceptible persons.

6. For the same reason psicaine should not be used except by those well accustomed to use cocain; the dose of psicaine should not exceed that found safe with cocain.

7. Psicaine is a "dangerous drug."

8. The price of psicaine has not yet been published.

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ABSTRACTS

I.—OPERATIONS


Forster's paper opens with an interesting survey of keratoplastic surgery dating from 1823 when the first operation of this kind was performed by Reike. The early operations were mostly done with heteroplastic grafts and were almost without exception unsuccessful. Many different methods were adopted. Nussbaum for instance in 1853 used little glass collar buttons 3 mm. in diameter inserted through a trephine hole in the cornea; —infection, iris and lens complications followed. A moderately successful result was obtained by von Haselberg, who in 1913 transplanted a disc of human cornea ½ mm. thick and 5 mm. in diameter on an opaque cornea and secured it with sutures. The graft was opaque at first but clear later, and a year after operation the vision was 1/60, the patient being able to go about alone.

Forster notes that "not only are tissues specific to the species, and so specific that there is no hope of transplanting tissues from one species to another, but it seems now generally agreed that there is an individual specificity within the species itself." A familiar instance of this is afforded by the grouping of cases for blood transfusion. He has, therefore, devised the following technique in conjunction with C. R. Bridgett. An equilateral triangle of 7 or 8 mm. is outlined on the cornea with small-pointed forceps. The entire thickness of the triangle area is cut out, placed in sterile oil and with its angles transposed is again replaced and stitched. The stitches placed at each angle are also sterilized in oil and penetrate all the layers of the cornea and flap. The
operations were performed on cats. The eyes were not irrigated with any antiseptic before or after the operation and the lids were not sewn together as they seemed to remain closed for three or four days after the operation and semi-opened for a week longer. Six animals were operated on and fundus details could subsequently be made out in all cases except one where there was swelling of the lids and conjunctival discharge following the operation.

The idea of the author is that if a macula exists in the centre of the cornea it can be so transposed as to bring a clear portion along the line of vision.

F. A. Williamson-Noble.

(2) Karelus, Casimar (Cracow).—A new surgical method of treatment in cases of serpent ulcer of the cornea. (Une nouvelle méthode de traitement chirurgical dans les cas d'ulcère serpigineux de la cornée.) Rev. Gén. d'Ophthal., April, 1924.

(2) After reviewing a small portion of the literature on the subject of serpent ulcer—and an almost exclusively German portion at that—Karelus describes his method, which consists in covering the ulcer with two large conjunctival flaps, one from below, the other from above, in such a way that the lower flap slides under the upper and both cover the cornea completely. Before doing this the ulcer is scraped and carefully cleaned up but not, one gathers, cauterized since the object of the operation described seems to be avoidance of the cautery. After the cornea is thus protected Karelus proceeds to excise the lacrymal sac if that organ is the cause of the infection, or to treat the conjunctiva if the infection lies there. Atropin and a double bandage are employed. At the end of a week the sutures loosen and are removed. At the end of ten days the two conjunctival flaps retract and leave, at the site of the ulcer, a strongly vascularized tissue. This vascularization represents the author's object, for the operation was inspired by the fact that an ulcer after travelling across the cornea begins to heal when it reaches the vascular corneal margin. Karelus has performed this operation 24 times for serpent ulcer and gives details of two particularly bad cases.

Ernest Thomson.


(3) Kasass employs for this operation a combination of the methods of Noicewski and Terson. Noicewski does not dissect off
the head of the pterygium with a scalpel, but tears if off with toothed forceps. Terson dissects out a fold of conjunctiva below the pterygium, and fastens it by three stitches to the edge of the conjunctiva above, after the pterygium has been excised. The author tears off the head of the pterygium, and by means of two horizontal and one vertical incision completes the excision of the pterygium. He covers this area by means of a fold of conjunctiva dissected up from below and pulled up over the excised area.

S. SPENCE MEIGHAN.

(4) Duverger (Strasbourg.)—The shortening of muscles. (Raccourcissement musculaire). Arch. d'Ophtal., June, 1924.

(4) In 1919* Mettey and Duverger published a description of a method of muscle shortening which they had employed with satisfaction, in cases of strabismus. Since that date Duverger has followed the same procedure in all cases of strabismus on which he has operated. He has, however, modified the operation in some details, the most noteworthy of which is the abandonment of silk sutures in the muscle. In their place he uses catgut, which is left in situ.

In this communication Duverger describes the operation in detail, and illustrates the method with a number of diagrams. He also gives an account with illustrations of experiments he made on dogs' eyes to show the results of advancement of a rectus muscle; eight months after operation the dogs were killed and sections of the eyeballs made through the insertion of the advanced muscle.

The paper includes brief notes of 39 cases operated upon by the author, and a number of photographs of patients. The results are summarized thus: 39 cases, 29 convergent, 10 divergent.

(a) Convergent strabismus: four cases with deviation under 15°, two good results, one moderate, one unsatisfactory; 24 cases with deviation above 15°, 21 good results, three poor results.

(b) Divergent strabismus: ten cases, in all of which the immediate results were very good, but in some, from one to five years later, slight divergence re-appeared, though insufficient to mar the aesthetic effect.

Duverger's paper should be read in the original. It is useless to give a description of the operation without the aid of the illustrations; with their assistance the steps of the procedure are easily followed.

J. B. LAWFORD.

*Arch. d'Ophtal., May-June, 1919.

(5) A patient of Lloyd's complained of pain in the eye on removing the cover five days after a successful needling. With the loupe a fuzzy end could be seen protruding from the hole made by the needle. On pulling this, it was found to be continuous with the capsular membrane. It was pulled out as far as possible and cut off but the end did not retract into the eye until a swab soaked in pure carbolic was rubbed on it. The string must have been present at the close of the operation, but being transparent it was invisible. The author, therefore, recommends subconjunctival introduction of the needle, or sealing off the limbus puncture with a carbolic swab.

F. A. Williamson-Noble.


(6) Radcliffe favours Ziegler's method of discission on account of its safety, simplicity, freedom from complications and for its preservation of the natural contour of the pupils. The method is as follows: Under cocain anaesthesia and full mydriasis, the cornea is punctured above with a Ziegler knife-needle turned on the flat. The knife is then rotated and the lens punctured with a thrust close to the lower border of the pupil and a little to the left of the middle line. The puncture passes through the entire thickness of the lens. It is then extended as far upwards as possible by a sawing movement in line with the axis of the knife. A similar incision is made starting from a point near the lower margin of the pupil, a little to the right of the mid-line to meet the first, the two forming an inverted V.

Ten cases are reported with good results, the main points being: that only one operation is done, as no subsequent needlings are required; that there is no re-action as the swelling of the lens cortex is in an antero-posterior direction; and, finally, that there is rapid solution of the lens cortex.

F. A. Williamson-Noble.


(7) Lloyd has found the usual procedure with adhesive plaster unsatisfactory in the treatment of these cases and has resorted to
the use of Michel clips. Two clips are used, "one being placed, about the centre of the lower lid, the other midway to the external canthus." After 48 hours they become loose and are replaced by two others just beside the holes left by removal of the first pair.

In cases where a corneal ulcer has developed, as a result of irritation by the lashes of the inverted lid, treatment with clips is required for about a month.

F. A. WILLIAMSON-NOBLE.


(8) Having noted after the use of novocain, certain post-operative disturbances, Burlanesco was led to reduce gradually the strength of the injections employed. To his surprise the anaesthesia was as complete as with the stronger solutions.

Following this lead he made a trial of sterile water and obtained excellent results. During eleven months ending October, 1923, he performed 33 ophthalmic operations of various kinds, including excision of eyeball, extirpation of lacrimal sac, removal of dermoid cysts, etc., and 40 removals of foreign bodies from the cornea, without a single failure; the only anaesthetic employed being sterile water.

For deep injections he uses a syringe of 10 c.c. capacity, with a steel or platinum needle 7 cm. in length. Ordinary tap water may be used: it is boiled for fifteen minutes and then allowed to cool to 40°C., so that at the moment of injection it would be about 37°C. The fluid must be injected very slowly, "drop by drop," especially during the early stage of injection.

In the case of foreign bodies on the cornea the sterilized water is instilled for five minutes, after which the cornea will be found insensitive.

Burlanesco's explanation of the mechanism of the anaesthesia is that when sterilized water is injected into the deep tissues the anaesthesia is due solely to the compression of the sensory nerve terminals by the fluid. The method being free from all risk of toxic effects seems worthy of trial. Perusal of Burlanesco's paper will supply further details of his procedure.

J. B. LAWFORD.
II.—LACRYMAL APPARATUS

(1) Barrie, T. Stewart (Glasgow).—Flattening or reduction of the inner canthus following extirpation of the lacrymal sac. Glasgow Med. Jl., July, 1924.

(1) "The removal of the lacrymal sac does not, as a rule, affect the inner canthus or angle of opening between the lids; in fact there is so little disturbance of the configuration and appearance of the parts surrounding the canthus that one is obliged to inquire into the history of lacrymal cases which come to operation lest an attempt be made to remove a non-existing sac." In the present case Barrie describes and illustrates with a photograph the results of a bilateral operation after which, while one canthus presented an undisturbed appearance, the other was flattened out, the commissure being lax but readily drawn into its normal position by slight traction towards the root of the nose. There was also a slight drooping of the margin of the lower lid, similar to that occurring in senile ectropion. The author, after a study of the orbit as described in Whitnall’s well-known treatise, comes to the conclusion that the defective result is due to the section going too deep and dividing the pars lacrymalis muscle which ought not to be involved in this operation. "Traced from the lateral side, the muscle fibres of the lids lie in front of the tarsal plates, but at the medial angle of the eye they pass deep behind the sac, or canthus plates, and form the pars lacrymalis muscle, which is attached to the posterior lacrymal crest." Barrie points out, however, that there may be a further explanation in that the orbital septum lies immediately behind the pars lacrymalis muscle, and if this be opened the whole supporting structure will be weakened, and healing will take place with the parts in a faulty position.

ERNEST THOMSON.

(2) Husson, A. and Jeandelize, P. (St. Quentin and Nancy).—About the lacrymal operation of Dupuy-Dutemps and Bourguet. (A propos de l’opération lacrymale de Dupuy-Dutemps and Bourguet.) Rev. Gén. d’Ophtal., October, 1924.

(2) This article by Husson and Jeandelize does not describe in detail the operation of plastic dacryocysto-rhinostomy, but is concerned with a number of details which have emerged in the course of sixty operations of this kind. They modestly say that these sixty cases add nothing to the imposing statistics of the authors of the method, but nevertheless have their value "for they demonstrate that operators who have no operative pretentions can
in the ordinary way and with success perform a plastic dacryocystorhinostomy.\textsuperscript{1} The authors have paid special attention to the subject of local anaesthesia and what they have to say about this is one of the principal points in this article. They now use three cubic centimetres of allocain to which is added adrenalin. The amount of this latter seems so small that the reviewer prefers to give the French words, viz.: "auxquels nous ajoutons $\frac{1}{4}$ de milligramme d'adrénaline au millième." Half of the above quantity of anaesthetic is injected above and half below the sac, and along the line of incision may also be injected a cocain-adrenalin solution. The anaesthesia thus produced is sufficient for a long operation. Cocain-adrenalin tampons must also be placed within the corresponding nostril. The remainder of the article is mainly taken up with various difficulties which may occur, such for instance as the presence of sinus cells between the bony wall and the nasal mucous membrane, and with details of some of the cases. Two special cases are related in which relapse occurred shortly after operation. Both of these cases happened to contract coryza. In the one case there had been noticed at the time of operation a sinus cell full of pus, and in the other a cul-de-sac had formed which had become re-infected. The first case became completely cured by lavage and injections of argyrol. The second was not completely cured and the authors regard this failure as due to faulty technique on their part and not as in any way reflecting on the reliability of the operation, which, it is obvious, they greatly admire and for the success of which they give all the credit to Dupuy-Dutemps and Bourguet.

**Ernest Thomson.**

(3) Cange, A. (Athens).—Congenital gangrenous dacryo-cystitis. (Dacryo-cystite congénitale gangrèneuse.) \textit{Arch. d'Ophthal.}, December, 1924.

(3) In the \textit{Annales d'Oculistique}, 1900, Veillon and Morax first described, as a definite clinical entity, a disease of the lacrymal sac to which they applied the term "Peri-cystitis of gangrenous type." Cange publishes full clinical and pathological notes of a case occurring in a newly-born child, apparently the first recorded example in infancy. His patient came under observation when one month old, the disease, according to the mother's statement having appeared fifteen days previously. In spite of active treatment by surgical measures and by serotherapy a fatal result ensued nine days after the child was first seen. There is no note of a post-mortem examination. The clinical picture was that of a large crater-like area in the region of the sac, with much surrounding oedema; the floor of the crater covered by a greyish slough with offensive odour.
Bacteriological examination of the exudate and tissues showed:

1. Large numbers of a feebly-staining gram-negative spirillum, with 3-4 spirals, morphologically resembling the spirillum of Vincent;
2. Very numerous fine bacilli, 2-3 μ, gram-negative, immobile and without visible spores;
3. Numerous cocci, gram-positive, of the staphylococcus type.

No growth of the spirillum could be obtained on any culture medium, aerobic or anaerobic. The bacilli grew slender colonies, greyish and whitish, but only in anaerobic cultures. From the cocci abundant cultures were obtained, aerobic and anaerobic, liquefying gelatine, and resembling cultures of staphylococcus aureus. Intravenous injection of the cultures was fatal to rabbits in four days.

J. B. Lawford.


In the examination of the lacrymal passages by means of the X-ray, the substance for injection requires the following characteristics:

(a) It must be opaque to the rays, even in small quantity;
(b) it must be perfectly homogeneous;
(c) it must be fluid at the temperature of the body; and
(d) it must be non-irritating and non-painful.

Bollack claims that this lipoidol, made by Lafay, containing 40 per cent. of iodine, is a suitable oil. After cocainization of the conjunctiva, in a case of lacrymal obstruction, the sac is expressed, then irrigated with normal saline, expressed again, and the fluid lipoidol injected, after having been slightly warmed, by means of an ordinary syringe. Usually about 0.5 c.c. is sufficient.

Bollack claims for the method both that it is a simple method of investigating the normal lacrymal passages, and also that, in disease of the passages, it affords exact indications of the changes of calibre, distension or contraction, the extent and position of the obstruction, and the condition of the neighbouring parts.

Humphrey Neame.


Bruner after noting that there is a death rate of 12 per cent. in cases of lacrymal tumours, states that the majority of new growths have been described as endotheliomata, sarcomata, carcinomata or mixed tumours. He describes two cases.
Ocular Syphilis

Case 1 was a man, aged 22 years, with a history of increasing swelling of the left upper lid for the previous three weeks; there was considerable increase in size of the growth during a further period of three weeks, and it was removed through an incision in the upper lid. Macroscopically it was soft, lobulated, and involved the whole gland. Sections showed the tumour to be composed of numerous new-formed connective tissue cells, containing fat, there was no definite capsule, and it was classified as a fibro-myxo-lipoma.

Case 2 was a youth aged 17 years. Swelling had been noted for a year previously. The eye was displaced forwards, downwards and inwards, and there was moderate ptosis. A firm nodular mass could be felt in the upper fornix after cutting through the external canthus. The tumour contained spindle cells with oval nuclei, masses of cartilage, bony trabeculae, gland-like structures lined by various types of epithelium, and epithelial pearls. There was a definite capsule in no place invaded by tumour tissue. The diagnosis was teratoma.

F. A. Williamson-Noble.

III.—Ocular Syphilis

(1) Blatt N. (Roumania).—Clinical observations on late syphilitic affections of the fundus. (Eye Hospital, Zenica-Bosnia.) Klinische Erfahrungen über spätluetische Augenhintergrundserkrankungen in Bosnien.) Arch. f. Ophthal., Vol. CIV, Pt. 3, 1921.

(1) Blatt had the opportunity of examining 200 patients in Bosnia, among whom he noted twelve cases of retino-choroidal disease, whereas optic nerve atrophy from tabs or paralysis among Bosnians or Turks was observed neither by him nor by his predecessor Professor Salus. Nor were other eye-symptoms noted which could be accounted for by tabs or paralysis. The chorio-retinal changes did not appear as complications in the secondary period, as in middle Europe, but as a late syphilitic development. Apart from the unusual time at which the complications appeared, the cases were characterized by advanced vascular changes and marked connective tissue formation in the fundus. Wassermann’s reaction was positive in all cases but one. Corneal disease was present only in one instance, and assumed the form of a right-sided parenchymatous keratitis, which healed rapidly under anti-syphilitic treatment. Remarkably frequent was inflammation of the ciliary body, also of the iris, and punctiform
Opacities of the vitreous body were invariably present. Actual disease of the papilla was never observed. The retinochoroidal foci were partly pigmented, and more numerous at the periphery than at the posterior pole; the choroidal vessels were often completely sclerosed. The new-formed connective tissue between retina and choroid had a remarkably shiny appearance, and was frequently to be seen also on the surface of the retina. Blatt proposes for the cases he has described (which are also in part illustrated) the name "Retinochoroiditis fibrosa luetica."

V. St. John.

(2) Blatt, N. (Roumania).—Examination of the liquor cerebro-spinalis as a diagnostic factor in syphilitic affections of the eye. (Uber die diagnostische Verwertung der cerebro-spinalis Liquorbefunde bei luetischen Augenerkrankungen.) Arch. f. Ophthal., Vol. CVI, 1921.

(2) Blatt examined the liquor cerebri in seventeen cases of syphilitic affections of the eyes, and lays stress on the diagnostic value of this examination. The result was negative in cases of disease limited to the eye (parenchymatous keratitis, iritis, choroiditis) as well as in several cases of optic nerve atrophy; in other optic nerve cases and in reflex immobility of the pupil, it was positive. He then makes a summary of the different ocular affections in which the liquor has been examined.

V. St. John.


(3) Kafka considers that the diagnosis and prognosis of ocular affections by means of the liquor cerebro-spinalis as demonstrated by Blatt's publication ("On the examination of the Liquor Cerebro-spinalis as a Diagnostic Element in Syphilitic Affections of the Eye" noticed above) is of great value. He comes to the following conclusions:

1. Liquor cerebri giving a positive Wassermann can not only settle the diagnosis of a neuro-syphilitic affection of the eye, but can also offer indications which are very useful in localizing the central or nervous lesion responsible for the ocular changes.

2. A positive liquor is always of value, a negative liquor only when the blood gives a positive Wassermann.

3. A positive liquor unquestionably indicates syphilitic disease of the central nervous system, but the contrary does not necessarily hold good in case of a negative liquor.

4. A positive liquor does not indicate, in the absence of other signs, that we can expect disease of the central nervous system to
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develop in the course of time. It points rather to already existing syphilis of the central nervous system which, so far, has not betrayed its presence by other clinical symptoms.

V. St. John.


(4) The comparative value of the Wassermann and Sachs-Georgi reactions was tested in 70 cases (50 syphilitic and 20 non-syphilitic). Of the 20 control cases 18 showed a negative result, in the remaining two the reaction was doubtful. In ten cases of parenchymatous keratitis there was present in six cases congenital syphilis, and, what is somewhat striking, in four cases the disease was acquired. The cases of congenital syphilis gave, with a single exception, positive results with both tests, while in the cases of acquired syphilis more negative than positive results were obtained. One case gave a negative Wassermann and a positive Sachs-Georgi Reaction. Also in the other categories the two reactions mostly gave results which agreed. A striking superiority of one reaction over the other was not noted. A slight superiority in favour of the Sachs-Georgi was observed in affections of the uveal tract, as 33, 3 per cent, positive Wassermanns could be opposed to 38, 8 per cent, positive Sachs-Georgi Reactions. In cases of disease of the retina and optic nerve, on the other hand, the author noted 58, 3 per cent, positive Wassermanns and only 5 per cent, positive Sachs-Georgi Reactions, while in affections of the pupillo-motor tract both reactions were positive in 60 per cent.

V. St. John.


(5) Ling of Pekin reports a case in which there was a double infection of the tarsal conjunctiva and the skin of the forehead. The possible specificity of lesions of the lid and conjunctiva should be borne in mind when a diagnosis is being made. The author quotes Maxey (*Amer. Jl. of Ophthal.*, 1918), who compiled the literature of 82 cases of primary syphilitic lesions of the eye and its appendages. The *Bull. of the Ophthal. Soc. of Egypt*, 1923, contains an important paper by Sadek, who reports 57 cases which occurred in his own hospital practice, and quotes the *Amer. Encyc. of Ophthal.*, Vol. III, tabulating 372 cases.

A. F. MacCallan.
(6) Cosmettatos, G. F. (Athens).—Affections of the cornea in acquired syphilis. (Des affections de la cornée au cours de la syphilis acquise.) Arch. d'Ophtal., December, 1924.

Primary chancre of the cornea is extremely rare. Only one example, published by Binet in 1883, is known to Cosmettatos and there is some reason to doubt the primary nature of the lesion in this case. In the secondary and tertiary stages the cornea is not infrequently involved, the disease appearing as diffuse parenchymatous keratitis, punctiform keratitis, or gumma, the first-named being the most common.

Cosmettatos publishes notes of four cases of the punctiform variety occurring in two males, aged 23 and 30 years, and two females, aged 29 and 40 years. The affection was bilateral in one patient, unilateral in the other three. In two the transparency of the cornea was completely restored; in the other two partial recovery ensued.

Two examples of gumma of the cornea are also recorded by the writer. Both patients were women, aged 35 and 40 years, and in both vigorous anti-syphilitic treatment was followed by complete recovery.

J. B. Lawford.

(7) Margerin, R.—(Clinique du Dr. Chaillous aux Quinze-Vingts.)

On the treatment of interstitial keratitis with bismuth salts.

Margerin used iodo-bismuthate of quinine in oily suspension called "Quinby," prepared by Aubry, in ampoules of 10 centigrams of the salt per c.c. (=2.5 c.gm. of bismuth metal). Only very occasional complications arose as the result of use of this preparation, in the form of swelling of the gums in children with defective teeth, but no marked stomatitis. No urinary changes developed, but, rarely in children, some fatigue without any obvious wasting.

Dosage. The dose for adults is 20 to 30 centigrams of bismuth per week up to a total of 2 to 3 grams; for children 8 to 17 centigrams per week. The drug is administered in one or two doses per week, for not more than six to eight weeks, for fear of development of bismuth anaemia. Often in addition to the above, doses of 15 centigrams of neosalvarsan (914), to stimulate blood formation in contrast to the effect of the bismuth, are given.

Margerin reports six cases of established bilateral interstitial keratitis in which he administered this treatment, and in which there was no definite improvement under other accustomed methods of treatment. In these established cases, there was no marked change of progress by treatment with the bismuth.
In eight cases of early unilateral interstitial keratitis, however, the following were noted:

(1) Marked diminution of photophobia and pain within about three weeks.

(2) Curtailment of the duration of the disease.

(3) Absence of disease development in the second eye, except in two cases out of the eight.

It should be noted that of the six cases in which one eye only was involved, the age of the patient was six, seven, seventeen, eighteen, twenty and twenty-seven years respectively, and that these cases were under observation for an average of only 2.1 months.

The two in which the second eye became involved, as is stated, to a much less extent than the first eye, were aged seven and eight years respectively, and suffered from the appearance of the disease in two and a half and four and a quarter months respectively from the commencement of treatment. These two cases were under observation in all up to three and a quarter and five months respectively.

Humphrey Neame.

BOOK NOTICE

Bulletin of the Ophthalmological Society of Egypt, 1924.

This volume, containing the communications read at the annual meeting of the Ophthalmological Society of Egypt, on March 7, 1924, has just been issued. Besides the delay in publication, we must criticize the proof-correction. As the result of remarks made in these columns with regard to the Bulletin of 1919, there was a great improvement in the volumes from 1920 to 1923, which, however, has disappeared in the present volume. We may remind the Editorial Committee of the Bulletin that it is not customary to underline italicized words and sentences, nor when a list of abbreviations is appended, to include in the text additional ones. By a comparison with the report of the first meeting of the Society in 1903 we note that only two of the eight existing original members of the Society are asterisked as such. The Bulletin contains some interesting papers, which are very creditably written, considering that they were not in the mother tongues of the authors.

E. Fuchs, in a paper on "Chronic Primary Glaucoma," describes the case of a middle-aged lady, who for some years was suffering from frequent sick headaches according to some of her doctors, from neuralgia of the fifth nerve according to others. She was repeatedly examined by very experienced eye specialists, who