I.—STRABISMUS

(1) Corrado. (Genoa).—Is there any relation between the degree of deviation and the optical and functional conditions in concomitant strabismus? (Sulla inconstanza dei rapporti fra grado dideviazione e condizione ottico-funzionale nello strabismo concomitante). Ann. di Ottal., October, 1934.

(1) It seems clear that there are many factors which enter into the causation of squint, and it is probable that the final solution of the problem is still to be found. The relation between the angle of deviation and the refractive error is a point that has been little examined. (The author has not come across Priestley Smith's Bowman lecture in Vol. XVIII of the Trans. Ophthal. Soc., U.K., which deals with this point.) Corrado comes to the conclusion that there is no absolute relation between the refractive errors and functional power of the eyes on one hand and the angle of deviation on the other. He thinks that the variable deviation may depend in some degree on the varying size of the macula in different subjects. If the macular region is small, a small deviation will remove the image in the squinting eye outside the area of distinct vision. With a large macula, the deviation must be greater; the varying degree of deviation will depend on the anatomy of the retina.

HAROLD GRIMSDALE.


(2) Braun gives a short review of work on the subject and records 10 cases, mostly adult patients, in whom the fields were carefully studied. He shows that in alternating squint the fields are equal and normal. In unilateral squint the field is normal in the good eye, but in the squinting eye he demonstrated, by means of a 1 mm. object, a half-moon, absolute scotoma on the temporal side of the fixation spot; the poorer the vision, the bigger this defect is, even passing over the fixation spot in cases in which fixation is poor. The author argues that this field defect really represents a central scotoma, as an eccentric area has taken over the role of the fovea.

ARNOLD SORSBY.

(3) Guibor has prepared a list of the instruments commonly used in the United States of America and in England in so-called squint training.

He classifies them as follows:

(1) Instruments depending on the use of prisms to produce the superposition of images.
   (a) Stereoscope.
      (1) Standard stereoscope (made in various models).
      (2) Variable prism stereoscope.
      (3) Training stereoscope.
      (4) Kinetic stereoscope.
      (5) Telebinocular.
      (6) Stereophorometer.
      (7) Keratometer.
      (8) Phoriascope.
      (9) Stereocampimeter.
      (10) Correct-eyescope (made especially for drawing).
   (b) Normalizer.
   (c) Panocular.

(II) Mirror reflecting instruments to produce the superposition of images.
   (1) Cheiroscope.
   (2) Amblyoscope.
   (3) Synoptoscope.
   (4) Synoptophore.
   (5) Stereo-orthoptor.
   (6) Orthoptoscope.

(III) Combinations-stereocampimeter with mirror attachment.

(IV) Instruments depending on the projection of light forms on a screen to produce superposition of images.

"The assertions that such instruments overcome amblyopia more rapidly than may be done with other means certainly rest on no foundation whatever. No instrument will take the place of prolonged monocular occlusion and atropinization for this purpose, the effect of the latter procedures being limited to a certain percentage of cases, and chiefly to those seen at an early stage."

The article has been adopted by the Council on Physical Therapy and the Committee on Standardization and Drugs of the Section of Ophthalmology of the American Medical Association.

A. F. MacCallan.

(4) It is difficult to make an interesting abstract on the subject of concomitant squint. So much has been written about it and still we continue to make successes and failures. Of course, the mechanical straightening of an eye is a comparatively easy thing to do, but the obtaining of stereoscopic vision in most cases is not. Savin in his post-graduate lecture seems to make this quite clear. Perhaps the main point in his article is his insistence on the fact that amblyopia is an inhibition of vision and is entirely different from abolition of vision. Whenever we can, and the younger the better, we should try to recover the lost vision before operating, whether by regular orthoptic treatment or by covering the good eye. In infants the good eye can be atropinized. With regard to the latter the author prefers the home-made patch over the spectacle lens to the bought occluder, on the ground that the mother attends more to the home-made article's efficiency than to that of the bought one, which she thinks is bound to be right. The following quotation from this excellent article (it must be remembered that it is a post-graduate address) is of some interest as showing the author's doubtful faith in orthoptic treatment. "Not long ago I tested the binocular vision of three cases of squint operated upon two years before. Owing to circumstances, no training of the fusion sense had been tried before or after the operation. They had all acquired full binocular vision by the unaided exercise of their own eyes. I thought wistfully of how well they would have looked in my somewhat meagre statistics of successes under orthoptic treatment."

Ernest Thomson.

II.—CONJUNCTIVA AND CORNEA


Gallenga has tried to discover what part is played in the production of these lesions by wind, by cold, and by light reflected from the snow. For this he has made use of rabbits whose third eyelid had been removed. It is possible, he says, to provoke an intense conjunctivitis, accompanied by a superficial turbidity of the cornea by exposing
animals to strong wind at high altitudes, even though the eyes are kept closed. There is a latent period after exposure of about 24 hours.

Exposure to cold alone will cause a condition of the cornea of epithelial turbidity and exfoliation similar in appearance to that often seen in glaucoma. This comes on without latent period and is due to increased evaporation and suppression of blinking. A high altitude is not necessary to produce this effect.

In high altitudes it is possible to reproduce actinic keratitis in rabbits by exposure to the light from the snow; this seems to be increased by cold, and the application of hot compresses during the latent period seems greatly to diminish the intensity of the attack.

**HAROLD GRIMSDALE.**

(2) Friede, R. (Jägerndorf).—Variability of horizontal and vertical diameters and surface area of the cornea and sclera in megalocornea, normal cornea and microcornea. (Zur Variabilität des wagerechten und senkrechten Hornhautdurchmessers und der Oberflächengrösse der Hornhaut und der Lederhaut bei der Megalocornea, Normalcornea und Microcornea).

The surface area of the cornea and sclera in the embryo, and in the new born, and their bearing on megalocornea of the adult. (Ueber die Oberflächengrösse der Hornhaut und der Lederhaut beim Embryo und Neugeborenen und ueber deren Beziehung zur Megalocornea der Ewachsenen).


(2) Friede draws attention to the conflicting measurements on corneal diameters and records 10,940 measurements carried out with the Wessely keratometer; 5,064 were in men, 5,876 in women. The horizontal diameter varied from 13.5 to 9.7 mm., the vertical 13.0 to 9.0 mm. The arithmetical means were 11.56 and 11.12 mm. respectively for the whole series, and 11.55 mm. for the horizontal diameter in men as against 11.50 mm. for that in women; with 11.21 mm. and 11.07 mm. for the vertical diameter in the two sexes.

The author also reports variations for the sclera. He holds that megalocornea is not to be regarded as a pathological disturbance, but is a biological variation frequently carrying with it a diminished surface area of the sclerotic.

In the second article Friede emphasizes this latter argument and points out that relative megalocornea is the normal condition in some lower animals, in the foetus and in the child. Megalocornea is not a localized gigantism.

**ARNOLD SORSBY.**

(3) Rubbrecht's method of treatment consists in dividing the floor of the ulcer after cleaning it and covering with a flap of conjunctiva which is secured in place. In the series of very severe cases which Clerici has treated by this method, he records fair success.

HAROLD GRIMSDALE.


(4) The internal secretions of the sex glands have been shown to have the property of favouring metabolism, and thus aiding in the repair of lesions of the skin. Rinaldi has made a number of experiments to discover whether these bodies have any similar action on septic wounds of the cornea when applied locally; the subjects of his experiments have been both normal and castrated animals; he has found in no case any modification of the course of the septic wound.

HAROLD GRIMSDALE.


(5) Galante, who is a lecturer in physiology at the University of Palermo, has made a biomicroscopical study of the limbal region in the normal and the trachomatous eye.

The vessels of the limbal region in the normal eye may be divided into three zones which from the periphery to the centre are the palisade zone, the zone of marginal vascular loops and the zone of terminal capillary loops. The latter two zones normally contain no blood. Where the curvature of the sclera merges into that of the cornea there is a primary groove which may be said to limit the palisade zone on the sclerotic side. Between the zone of marginal vascular loops and the zone of terminal capillary loops there is a secondary groove, the outline of which is indistinct.

In the trachomatous limbus the primary groove is occupied by a slight oedema which extends towards the cornea. The vessels of the terminal capillary loops are markedly developed in whorls. They may be interlaced to form a network from which fine capillaries are directed towards the centre of the cornea. In active
conditions of trachoma the zones of marginal loops and of palisades show congested vessels. The limbal vessels are encompassed by a well-marked halo which follows all their sinuosities, and is the expression of an intra-lamelar oedema. This shows that there exists in the limbal region of even the quiescent trachomatous eye a permanent source of irritation which any slight stimulus may excite. The perivascular oedema is succeeded by a cellular infiltration which, as in the conjunctiva, leads to the deposition of connective tissue. The limbal region gradually assumes a milky appearance with a trellis-like structure. The rosettes and pits of Herbert may be found, but are not invariably present.

A. F. MacCallan.

III.—MISCELLANEOUS


(1) "Uveo-parotitis is a definite clinical entity characterized by bilateral uveitis and parotitis, pursuing a chronic course with a well-marked tendency to spontaneous recovery." It was first described by Heerfordt in 1909 who considered it to be a complication of mumps. Garland and Thomson (who themselves wrote the opening statement) have recently stated that it should be known as uveo-parotid tuberculosis. They contend that their statement is based on the following evidence, viz., post-mortem findings and biopsies with histological evidence of tuberculosis, iris nodules, focal reaction to tuberculin and tuberculosis of lung with positive sputum. Their cases number 22 altogether and the authors say "In more than one-third of the recorded cases we have incontrovertible evidence of tuberculous infection." Tait criticises this and says "Yet the composite picture of the signs of uveo-parotitis bears but a slight resemblance to tuberculosis."

Ernest Thomson.

(2) Davies, T. A. Lloyd (London).—Uveo-parotitis polyneuritica. Lancet, October 6, 1934.

(2) It is impossible to do better than to quote textually Lloyd Davies' opening statement as to the condition which he is describing. "Uveo-parotitis polyneuritica (febris uveo-parotidea of Heerfordt) is an uncommon syndrome characterized by inflammatory lesions of the uveal tract of the eye, enlargement of the parotid glands, facial palsy (commonly unilateral, but occasionally bilateral) and fever. The syndrome may occur at any age
(commonest in young adults and slightly commoner in females). Frequently there is a short prodromal period in which skin rashes may appear. In spite of the name given by Heerfordt, fever is not essential, many cases being apyrexial.” The author gives a list of the principal cases hitherto described by authors of whom he appends a list of 19 names.

It will be noted that the author adds the title “polyneuritica” to “uveo-parotitis.” This was a very marked symptom in the case described by Garland and Thomson (q.v.). One would like to quote the case in full, but as in the others, these reports contain so many facts that full quotation would occupy more space than can be given. It must suffice to state that the patient was a female, aged 25 years, and that the family history disclosed nothing relevant. The personal history showed that she had measles and chicken-pox in infancy. Mumps (which it is generally admitted has nothing to do with these cases) occurred at the age of 7 years. Five cases altogether are described in this and the other reports and they certainly form a most interesting quintet.

Ernest Thomson.


(3) Garland and Thomson in reporting two further cases of this disease at great length—and to transcribe the cases would occupy too much space—give a summary of the condition, which itself demands fairly complete transcription. Most of the patients are in the second or third decades of life. Parotitis is constant and nearly always bilateral. The swelling is firm, nodular and painless, and subsides in a period which varies from days to months. Bilateral uveitis is present in every case. It usually takes the form of iridocyclitis, often with nodules in the iris recognizable as tuberculous and showing a great tendency to the formation of synechiae and keratitis punctata. The ocular lesions frequently relapse and tend to leave permanent changes which may, rarely, result in blindness. Half the patients develop facial palsy always followed by recovery. Mild pyrexia also occurs in half the cases and a smaller proportion show polyneuritis, xerostomia, polyuria, lacrimal gland involvement, joint pains and erythema. The mortality is about 5 per cent.

It has been thought that syphilis, leukaemia and tuberculosis might be causes, but the authors have already shown that all the evidence is in favour of tuberculosis. Microscopically the tuberculosis is of a peculiarly fibrosing and non-caseating type showing very scanty bacilli. Two of the four cases which have come to autopsy have shown the myocardium as the seat of a similar
fibroid tuberculosis. This ends the authors’ summary of symptoms. The most severe case follows on. She was 31 years of age, and one would be inclined to say that if ever a person came near death’s door from polyneuritis it was this one. But she did not succumb. The details must be obtained from the original article. They make one feel, taken along with those given in the three other papers in this one number of the Lancet, that the disease is really more common than actually the case. Actually it is a fairly rare condition

Ernest Thomson.


(4) Böck and Risak argue that tuberculous toxins can induce ocular palsies through vasomotor disturbances and also through more direct effects. They report the case of a woman, aged 30 years, with a tuberculous history and evidence of previous pulmonary and glandular tubercle. There was also a necrotic tuberculide on the leg; the von Pirquet reaction was strongly positive. There was a right IIIrd nerve palsy, paresis of VIIth on the right side and absence of the corneal reflex in both eyes. Under treatment with old tuberculin complete recovery set in. Following a recurrence of the lesion on the leg and its healing, the eye condition came on once again together with the facial palsy.

Arnold Sorsby.


(5) Andrade induced injuries in the ciliary region of rabbits and simultaneously injected tubercle bacilli into the blood stream. He found that injury is not a strong predisposing factor for the development of a tuberculous lesion; in 14 cases the injured eye was affected, in nine the uninjured one. The lesion in the injured eye was, however, much more severe, and the fact that in such eyes the anterior segment was the seat of the tuberculous lesion proves the significance of trauma in the development of the affection. Affection of the injured eye is not a determining factor.
for the development of the lesion in the uninjured one, as the uninjured eye may be the only one affected. The effect of injury on the histological nature of the lesion was not such as to change the basic tuberculous nature of the lesion. On the strength of these findings the author can see no evidence for regarding sympathetic ophthalmitis as a tuberculous reaction.

ARNOLD SORSBY.


(6) The two page article by the late Bernard Cridland was received by the Editor of the Lancet only two days before the author’s death. It does not appear to contain much in the way of new facts, but is an article which will enable the general practitioner to weigh up the consequences for an eye according to the site of the retained foreign body. The case where the eye is injured without retention of the foreign body is also discussed.

ERNEST THOMSON.


(7) This article, which, by the way, is one of those contributed by invitation, is so packed with information that one sits down and wonders how it is to be abstracted. Indeed, it seems to cover the whole ground in the space of two or three columns of the Lancet. All that can be done is to quote what the reviewer considers to be the most striking passage of it. After mentioning what is probably nearly all that is known about syphilitic, gonorrhoeal and tuberculous types of anterior uveitis, Duke-Elder discusses the most difficult type of all, that which is due to an infective focus “somewhere” in the body. This is some of what he says: “More than one focus may exist simultaneously; a streptococcal infection may involve the teeth, the tonsils and the colon, or two different types of infection may be firmly established in two different regions. In this way it is easy to fall into the error of over enthusiasm, and there is no doubt that in recent years, partly through insufficient understanding of the causes of diseases, partly through a desire to adopt some pragmatic and radical course of treatment, much unnecessary and mutilating surgery has been done in the wholesale removal of teeth, tonsils appendices and the rest, or in the scavenging of nasal sinuses, endometria, or colons. Time and again we see patients on whom an enormous amount of radical surgery has been performed for the sake of an iritis which goes placidly on in complete disregard for the mutilation for which it is responsible.”

ERNEST THOMSON.