

Table showing Results in 16 Cases of Enuresis Treated by Thyroid Extract.

Case.	Years of age.	Duration of enuresis.	Number of nights per week in which enuresis occurred before treatment.	After treatment commenced—	Week of treatment.												
					1st.	2nd.	3rd.	4th.	5th.	6th.	7th.	8th.	9th.	10th.	11th.	12th.	13th.
1	3	Since birth.	7	Enuresis occurred ... Dose of thyroid in 24 hours (in grains)...	0	0	0	0	1	0	0	—	—	—	—	—	—
2	4½	10 months.	7	Enuresis ... Dose ...	4 ½	4 ½	5 ½	7 1	5 1	2 1½	1 1½	2 1½	0 1½	0 1½	0 1½	0 1½	—
3	7	3 years.	7	Enuresis ... Dose ...	5 ½	2 ½	2 ½	1 ½	1 ½	2 ¾	Ceased attending. No reply to card.						
4	6	3 months.	7	Enuresis ... Dose ...	2 ½	2 ½	1 ½	2 ½	1 ¾	0 ¾	1 ¾	1 ¾	Ceased attending.				
5	10	Since birth.	7	Enuresis ... Dose ...	2 ½	1 ½	1 ½	4 ½	4 ½	2 1	2 1	1 1	2 1	2 2	1 2	Ceased attending.	
6	6	Since birth.	7	Enuresis ... Dose ...	4 ½	0 ½	0 ½	3 ½	2 1	3 1	1 1½	1 1½	1 1½	2 1	2 1	2 1	2* 1
7	9	3 years.	7	Enuresis ... Dose ...	2 ½	0 ½	0 ½	Ceased attending. No reply to card.									
8	8½	Since birth.	7	Enuresis ... Dose ...	2 ½	1 ½	0 ½	1 ½	1 ½	0 ½	1 ½	0 ½	Ceased attending.				
9	8	1 year.	3-4	Enuresis ... Dose ...	3 ½	1 ½	0 ½	1 ½	0 1½	Diarrhœa; treatment stopped.							
10	5½	Since birth.	7	Enuresis ... Dose ...	4 ½	4 ½	2 ¾	2 ¾	Ceased attending.								
11	6	Since birth.	7	Enuresis ... Dose ...	4 ½	3 ½	2 ½	Ceased attending.									
12	11	2½ years.	7	Enuresis ... Dose ...	3 ½	1 ½	1 ½	1 ½	1 ½	1 1	2 1½	2 1½	Ceased attending.				
13	7	1 year.	7	Enuresis ... Dose ...	7 ½	7 ½	7 ¾	5 1	6 1	7 1½	4 2	3 2	3 3	3 3	4 3	6 4½	7 4½
14	12	7 years.	7	Enuresis ... Dose ...	7 ½	7 ½	7 ¾	6 ¾	5 ¾	2 1	3 1	Attended at very irregular intervals after this.					
15	9	10 months.	7	Enuresis ... Dose ...	3 ½	2 ½	3 ½	3 ¾	2 ¾	2 1	1 1	1 1	2 1	1 1½	1 1½	1† 1½	—
16	12	3 years.	7	Enuresis ... Dose ...	3 ½	3 1	4 1	3 1½	2 1½	Ceased attending. No reply to card.							

* Developed chorea.

† See No. 15 under "Remarks upon the cases."

The dose, it must be noted, was much smaller than that given in Dr. Leonard Williams's series of cases, but five cases of diarrhœa in a total of 28 could hardly be coincidence. That the diarrhœa ceased when the thyroid was withheld and that only one case, that of a boy 11 years of age, occurred during the hot weather (1910) reasonably prove the thyroid was the most probable cause.

When the child is backward, slow at school, or displays other signs of mental lethargy, and especially if the weight be markedly below the average, the use of this preparation holds out a very fair prospect of success. Definite and permanent improvement appears to occur, even if the cure is not absolute, for not one of the replies received indicates serious relapse.

The dosage employed was doubtless rather small, but the onset of diarrhœa in two of the early cases rendered me chary of administering the drug in large doses to out-patients, and its occurrence in three more cases confirmed me in this, but possibly with a more rapid—i.e., weekly—increase of dose more speedy results would have been obtained.

As indicated above, both pulse-rate and temperature are untrustworthy, when only taken once weekly, in providing danger-signals of thyroidism, again an argument in favour of caution; but where the patient is under constant observation, as in hospital, the dose might be rapidly increased with safety, especially in the case of the undersized, backward child.

Eight children in the second group were treated with atropine, and of these 5 showed marked improvement. I have had little experience of the effect of thyroid extract in cases in which belladonna has failed, 2 only, both encountered after drawing up this series of cases, and both up to the average standard mentally and physically.

In the days before thyroid extract had been suggested as a cure for nocturnal enuresis, I saw some cases in which the improvement caused by atropine in backward children was as marked as the cases of this series treated by thyroid extract, and it seems probable that if an equal number of unselected cases were treated with atropine alone the results would be

as good, if not better, and that the greater percentage of unsuccessful cases would occur amongst the type of child commonly called "backward," the type in which thyroid extract is most successful.

THE USE OF ROSENBACH TUBERCULIN IN SURGICAL TUBERCULOSIS.

BY GEN. MED. RAT PROF. DR. FRIEDRICH J. ROSENBACH.

(In Charge of the General Surgical Clinic of the University in Göttingen.)

THE treatment of surgical tuberculosis is at present one of the most unsatisfactory tasks of the medical man. Advanced, serious, and extensive disorders, as well as quite recent but easily accessible foci, frequently repay, it is true, radical operations. On the other hand, many local manifestations of tuberculosis—e.g., spinal tuberculosis—cannot be submitted to radical operations at all, others only by the sacrifice of functions or of appearance or by mutilation. In recent cases when the symptoms are slight it is difficult for a medical man to decide on such operations. He is uncertain whether the sacrifice will bring about even local cure, let alone complete freedom from tuberculosis. He is therefore bound to have recourse to less radical measures, such as fixation, the congestion method, and general treatment, whilst awaiting any further development which may prove favourable. Naturally this is not the ideal treatment, such as might be sought in an effective chemotherapy. Here some slight progress has been made by the injection of iodoform into tuberculous joints, but for general application in tuberculosis this remedy has not proved any more valuable than the countless other attempted remedies.

During a general clinical and surgical activity of 36 years I have tried chemical agents of every sort against local tuberculosis, without any real success. In the face of the

unsuccessful use of Koch's Alt-tuberculin I had no leaning for a long time towards immune therapy—that is, the use of tuberculin. At last, I did indeed come to treatment by tuberculin, but using a new tuberculin. A study of the biochemical reciprocal effects of bacteria and plants led me to submit a culture of tubercle bacilli to the action of a trichophytonmyces. From this resulted the preparation of a new tuberculin, in which the poisonous constituents are destroyed and the immunising constituents preserved.¹ The firm of Kalle and Co., A.G., Biebrich-on-the-Rhine, has undertaken the manufacture of this new tuberculin and under my control has delivered large quantities to hospitals and clinics for experimental purposes, the quality of which has been uniformly unexceptionable.

This tuberculin is used in two ways: the first is by means of subcutaneous introduction into the circulation for the treatment of inaccessibile local tuberculosis. It is then, like other tuberculins, retained in the foci by elective combination. It here produces inflammatory exudation with accumulations of leucocytes, absorption of tuberculous tissue, and thus a pronounced curative process. The second method of administration is by means of direct injection into the diseased foci—e.g., joints, tendon sheaths, lupus, &c. In this case the tuberculin produces the same process, but much more intensely. The inflammatory exudation and the leucocytic infiltration is as intense here as in acute cellulitis. The soft parts become very red, are hot to the touch, hard, painful, and there is extensive swelling. Any hollow spaces existing—e.g., joints—are extensively filled with fluid. At the same time general symptoms are observed, such as indisposition and increase of temperature. All these symptoms disappear at once without doing any harm and leave behind a striking improvement of the tuberculous affection. Where the tissue has not yet suffered any vital damage from tuberculosis—that is, where there is no ulceration, granulation, caseation, &c.—it is often possible that a few injections completely cure joints and tendon sheaths, &c., in particular where tuberculous infection is recent.

On the other hand, parts where ulceration, granulation, caseation, and necrosis are already present become inflamed, so that suppuration accompanied by indisposition and fever ensue, and closed parts—e.g., joints—open and discharge this pus. Even then, if the treatment is continued, a cure with contraction is possible by the gradual expulsion of substances which are not capable of absorption, but, as a rule, the cure must be completed by operation, scraping, thermocauterisation, removal of affected bones, articular resection, &c. Even in lupus it is necessary, after the affection has been diminished and softened by the injections, to remove the affected parts by operation.

I have treated a number of cases of surgical tuberculosis with Rosenbach's tuberculin, and last year I reported three of them,² but at that time under reserve of further observations, so as to convince myself that the results were permanent and the treatment satisfactory. At present my earliest cases have been under observation from two to three and a half years, and subsequent tests with this specific are being carried out in many clinics and medical institutions.³ For this reason I feel it a duty to publish the record of my experiences. In order to facilitate a right judgment of its merits, and further to assist those medical men who might wish to apply this treatment in forming an idea of the method of administration, where and how it should be applied, its value and what is not to be expected of it, I will first make a few general remarks.

The treatment of tuberculous disorders by tuberculin belongs in no sense to chemotherapy, that is to say, it in no way relies on a poisoning of the tubercle bacilli by chemical substances, as, for example, the treatment of syphilis depends on poisoning of the spirochætae by mercury, iodide of potassium, or salvarsan. It would be of the highest importance if an analogous remedy could be found for tuberculosis. It has indeed been sought by medical men from the earliest times, but without success. While for a long time a very effective specific treatment of syphilis by various chemical substances has been possible, no chemical specific has ever been found which could stand comparison

with those specifics used in the treatment of syphilis, so that up to to-day there seems no hope of any specific chemotherapy of tuberculosis, and until such a specific is found Koch's great discovery of the antigen treatment is of supreme importance.

This treatment by means of tuberculin is therefore a part of the therapy of immunity, but among the methods of this therapy it stands in a peculiar position. The treatment of acute infectious diseases depends largely on the method of so-called passive immunisation by sera of immunised animals, because this is the only way in which sufficient quantities of antitoxin substances can be quickly introduced into the affected body. On the other hand, as a prophylactic agent the more effective and more permanent active immunisation process has been exploited; its greatest achievement is Jenner's vaccination against small-pox. In acute infectious diseases, if infection has already taken place, active immunisation has only been successful in rabies, where it has time to develop on account of the long period of incubation. As a matter of fact, this also, strictly speaking, is a question of prophylaxis, for if the rabies has already declared itself or is imminent, no cure can be obtained by this method. In the treatment of tuberculosis, however, the demand is that an affection of long standing shall be successfully treated by active immunisation, the tuberculin cure. It is assumed that owing to the chronic condition of the disease and its localisation the organism has still sufficient power of biochemical function to react to the stimulus of antigen and to form antitoxin substances. The answer to the question whether this assumption has any real foundation can be only decided by clinical experiment. To a large extent this experiment has already taken place in the application of Koch's Alt-tuberculin, and in spite of early failure results have been achieved in the second tuberculin period so far positive that in certain circumstances the disease can be satisfactorily influenced. Even in cases of pulmonary tuberculosis reported in my paper⁴ a quite favourable effect of Rosenbach's tuberculin cannot be denied. The cases of surgical tuberculosis to be reported are, however, still better adapted to demonstrate the influence of this tuberculin. It is not claimed even in these cases that the treatment with Rosenbach's tuberculin goes beyond the therapeutics of immunity, and in order to appreciate the results it is necessary clearly to see how far and in what cases the therapy of immunity is affected and what are its limitations.

Particular weight must be laid on the following three factors of the action of the immunised body. The first refers to the effect on the disease-producing microbes in the immunised organism. It has been proved by experiment that these microbes, if introduced into animals immunised against the disease, can be supported in deadly doses, whilst the microbes are themselves considerably affected and to a great extent destroyed, but not completely killed and extirpated. This fact has been experimentally demonstrated in animals for the bacilli of cholera, typhoid, pyocyaneus, and anthrax among others. As these bacilli cannot live in the animal as long as the immunity lasts, recurrence of the disease is not to be apprehended. This, however, is not true of all microbes, and in particular of the tubercle bacillus, which is known to have the power of existing in living tissue for years or a whole lifetime.

The second factor which we have to consider is the fact that the immunity only lasts for a definite time. This period is certainly in the case of Jenner's inoculation against small-pox a very long one, but in other diseases it is relatively short, so that if, on the one hand, the microbes remain alive in the body, and on the other hand the immunity disappears too soon, the danger at once arises of recurrence of tuberculosis. The case, however, is not so unsatisfactory as it might appear. The extraordinary vital tenacity of the tubercle bacillus is bound up with special conditions, such as, for example, are found in cases of facial lupus, while in other places complete disappearance is very frequent. I would draw attention to frequent chance post-mortem results in cases of cured pulmonary tuberculosis and to the frequent cures of articular, spinal, and peritoneal tuberculosis which follow without treatment or only by fixation, opening, congestion, &c. For this reason I believe that the cures to be reported, brought about by the activity of Rosenbach's tuberculin, are now, after the lapse of one to three years, to

¹ Deutsche Medicinische Wochenschrift, No. 33, 1910.

² Loc. cit.

³ Dr. Ludwig Seyberth, Beiträge zur Klinischen Chirurgie von P. v. Bruns, vol. lxxiv., p. 744.

⁴ Loc. cit.

be regarded as permanent. A permanent cure of lupus generally necessitates a longer treatment. I shall return to this subject.

The third factor—a very important one—of treatment by production of immunity is the fact that the healing power of this treatment is stronger and more certain the more recent and less developed the stage of the affection and the weaker in proportion to its long standing and development. Treatment with Rosenbach's tuberculin is contra-indicated in the last stages of phthisis, in serious affections before this state, and in cachectic cases with severe surgical tuberculosis. Nevertheless, from time to time hopeless cases have shown a transitory improvement, and very serious cases have been permanently relieved and even cured. In recent cases surprising results may be observed such as have hitherto never been known. Besides the reported methods of using Rosenbach's tuberculin the medical man in charge of the case must note that this tuberculin, when introduced into the tract of fistulæ and open cavities, only produces superficial inflammation, and is expelled with the secretion without doing good.

To produce a cure the injection must be made into the walls of open fistulæ and cavities, after surgical treatment of the latter.

Diagnosis of tuberculosis with Rosenbach's tuberculin.—If after subcutaneous injection of 0.2 c.c. in the upper arm, for instance, there is no cutaneous reaction, this injection is to be repeated on the following day with 0.3 c.c., and perhaps even with 0.5 c.c. on the third day. Cutaneous reaction denotes a positive result. From time to time symptoms of irritation appear at the site of injection in patients unaffected with tuberculosis. These symptoms, however, are different from the typical cutaneous reaction in cases of tuberculosis.

Report of Clinical Observations, referring in all to 47 Cases.

1. *Tuberculosis of the large joints.*—Treatment: Local treatment was particularly successful. Injection into the cavities of the joints produced sure and rapid effect. When the case particularly indicated such treatment (in cases of tuberculous affection together with the articular affection), the subcutaneous treatment was adopted with the local or by itself. It was also often adopted at the beginning of the treatment of a joint in order to alleviate the first reaction in the joint. Dose: The initial dose, except in peculiarly sensitive cases, was almost always 0.2 c.c. Rosenbach's tuberculin. This was so even in the case of a child of 1 year 9 months. On repetition the doses were increased by 0.1 c.c. If the reaction was strong the doses were not increased so often. The time for the repetition of the injection depended on the reaction, the condition of the patient, and the quantity of the dose. Small doses with slight reaction were often repeated on the following day because they were too small. Other doses producing a perceptible reaction were only repeated on the third to the seventh day, and others producing intense reaction were only repeated after eight to ten days. In the hip-joint the last big doses were only repeated after two weeks. Often the patient for other reasons wished the doses repeated at long intervals. This is, of course, inexpedient. As, however, the effect of the injections persists for months treatment may be of value with long intervals. When the reactions left off or became weaker in spite of increased doses the treatment was for the time regarded as at an end.

Of 4 cases of tuberculosis of the elbow 2 were cured after a few injections with very satisfactory functional results. The permanency of the cure was demonstrated 1 year 9 months and 1 year 5 months after the beginning of the treatment. In 2 cases abscesses were formed. These were cured by resection. I must here lay stress on the fact that abscesses following on injections of Rosenbach's tuberculin must not be regarded as failure but as success, because in this way an operation is at once indicated and long and fruitless conservative treatment is frequently avoided.

Of 5 cases of tuberculosis of the knee-joint 4 were cured, and in 3 cases with very good movement, in 1 case less so. The permanence of the cure was demonstrated in 2 cases 1 year 4½ months, in 1 case 1 year six months, and in the fourth case 1 year 1 month after the beginning of the treatment. The fifth case (subchondral osteitis) was treated by resection and cured. Of 3 cases of tuberculosis of the hip-joint 2 were cured, in 1 with good movement, in the other

limited. The permanence of the cure was demonstrated 1 year 9 months and 10 months 20 days after the beginning of the treatment. One case was successfully treated by resection. Of 3 cases of tuberculosis in the foot 1 was cured by the injections, and the permanence of the cure was demonstrated ten months after the beginning of the treatment. Two cases developed abscesses and were treated by resection.

Of 16 cases of articular tuberculosis 9 were cured by treatment with Rosenbach's tuberculin; in 7 cases purulent inflammation resulted and they were cured by resection.

2. *Tuberculosis of the spine.*—Spinal tuberculosis was treated by subcutaneous injections. There is no certain criterion for the cure of spinal tuberculosis. Nevertheless, three of the seven cases treated were certainly cured, the permanence of this cure being demonstrated in the first case 1 year 8 months, in the second 3 years 3 months, and in the third 3 years 7 months after the beginning of the treatment. In the latter case a bilateral purulent burrowing abscess was completely cured. It is very probable that three of the other cases were cured, and in any case improved. In one case of tuberculosis from infancy tuberculous meningitis supervened four months after the end of the treatment and the patient died.

3. *Tuberculosis of the tendon sheaths.*—Tuberculous bursæ were treated like the joints with local injections into the cavities and in the vicinity of the abscesses when formed. Three cases were cured with complete power of function, once without and twice with abscess and suppuration. The permanence of the cure was demonstrated 1 year 5 months and 1 year 7 months after the beginning of the treatment.

4. *Glandular tuberculosis.*—In 2 cases the tuberculin was introduced by subcutaneous injections. In each case the affection was diminished, once with induration and calcification, the other case with suppuration and abscess, once extirpation, once scraping. The permanence of the cure was established 1 year 1½ months and 1 year 3 months after the beginning of the treatment. Local injection first into a gland and after the extirpation of the gland into the induration remaining caused abscess, suppuration, and cure. The permanence of the cure was established 6 months and 1 year 3 months after beginning of the treatment.

5. *Recurrence of tuberculosis, fistula, and fistulous abscess in the soft parts.*—In two cases there was a recurrence of affection after operations on the bone. The first case was fistulous, the second closed. They were cured by injections into the tissue, the bone lying free at the bottom being in one case removed. The three other cases concerned fistulous subcutaneous abscesses. They were cured by injections into the walls, in 2 cases with scraping. The permanence of the cure was established 9½ months, 1 year 6½ months after the beginning of the treatment.

6. *Lupus.*—Treatment: Local injection into the cutis under the part affected. Dose increased and intervals between injections as in the treatment of the joints. During the treatment the injections should be made uniformly in all parts affected by lupus. The local reaction varies from moderate to severe, with secretion, similar to acute cellulitis, which disappears very quickly. After several operations the lupus is diminished, improved, and softened. Beside local reaction there are general symptoms of fever, indisposition, and loss of appetite. In course of time the reaction decreases in spite of increased doses. It is at this time that operation must be made. When the extent of the affection is reduced and the position allows it the remaining lupus areas should be cut out and either sutured or grafted or else scraped and cauterised. In cases of recurrence the injections and operation on the same principle are repeated and the last remnant cut out. Recently I have used another method. After the cure produced sooner or later I have made trial injections, my intention being in the case of reaction to proceed with renewed injections as a precaution against recurrence. Of 11 cases of lupus, in 10 subjects 4 were cured by a single injection treatment followed by operation. The permanence of the cure was established 7 months, 11 months, 1 year 9 months, and 2 years afterwards. Three patients after being twice treated by injection were cured by subsequent operation. In these cases the cure was established as permanent after 1½, 4, and 9 months. Three serious cases were cured after being treated several

times by injection and operation. In these cases the treatment was long (1 year 2 months to 1 year 6 months); one patient is still under treatment. When the patients last presented themselves the cure had lasted 3 months, and in two cases 3½ months.

7. *Peritoneal tuberculosis*.—A boy, aged 9½ years, had been suffering for 2½ months from peritoneal tuberculosis, and was in a very bad state. He underwent a treatment lasting two months with 34 injections (23·2 c.c. Rosenbach's tuberculin). The permanence of the cure was established 11 months after the beginning of the treatment. Increase of weight in that time 6·5 kilogrammes.

8. *Intestinal tuberculosis*.—A boy, aged 9 years, suffering from intestinal tuberculosis was treated with 44 injections (24·1 c.c. Rosenbach's tuberculin). 1 year 10 months after the beginning of the treatment complete and permanent recovery was proved. Increase of weight in this time 7·75 kilogrammes.

Göttingen.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NOTE ON A CASE OF TREPHINING IN ACUTE GLAUCOMA.

By A. A. BRADBURN, F.R.C.S. EDIN.,

HONORARY OPHTHALMIC SURGEON TO THE HYDROPATHIC HOSPITAL, SOUTHPORT; OPHTHALMIC SURGEON TO ORMSKIRK HOSPITAL AND DISPENSARY.

In the issue of THE LANCET for Oct. 21st last (p. 1136) Mr. Sydney Stephenson describes a successful case of trephining in acute glaucoma. In the treatment of chronic glaucoma this operation is becoming more into favour and its value better known. In acute cases it is still on its trial, hence the necessity for recording cases in which its use has proved of benefit.

The patient in the present case was a single woman, aged 51 years. I saw her first in consultation in May, 1910, when she was suffering from a fairly severe attack of congestive glaucoma of the right eye. Under appropriate treatment the attack subsided, and though warned to keep herself under observation this she failed to do. On the evening of Sept. 27th I was asked by her medical attendant to see her again, and I found the patient suffering from a more intense form of glaucoma. The pain radiated mostly down the side of the neck and right shoulder-joint. The ocular symptoms were unmistakeable—semi-dilated, inactive pupil, no anterior chamber, hazy media, dilated conjunctival vessels, and plus tension with tenderness on digital pressure. The patient was immediately removed to a nursing home. Two leeches were applied to the temple, two powders of 2 grains of calomel were administered at two-hourly intervals, and a sleeping powder of trional and compound ipecacuanha was ordered. Locally dionin and eserine were instilled every hour. These measures gave marked relief, the action of the calomel being particularly copious. The bowel contents were evacuating for the ensuing 24 hours although the patient had denied any possibility of their being confined. So much for the reliability of the patient's statements. As the patient was a chronic bronchitic with marked atheroma administration of a general anæsthetic was to be avoided if possible. It was therefore decided to attempt the operation under the local use of cocaine, which seemed more feasible now that the ocular tension was a trifle lowered. Further, as the iris was lying close against the posterior surface of the cornea, the ordinary operation of iridectomy would have presented great difficulties which would not have been lessened by the hyperæsthesia of the eye.

Cocaine and adrenalin having been instilled, a flap of conjunctiva was raised and the trephine was applied over the neighbourhood of the limbus. Until the instrument came down on the ciliary nerves no pain was complained of, but when this stage was reached solid crystals of cocaine had from time to time to be placed in the cut of the trephine. As soon as the disc of sclera was removed the bottom of the

wound was found to be blocked by the iris and a spatula was very gently introduced, but not without causing the patient to experience some pain, and its base was pushed back into the anterior chamber which allowed the aqueous to be slowly evacuated. This step in the procedure of allowing the aqueous to slowly leak away is an important detail when the intraocular pressure is accompanied by high arterial pressure.

Before the operation the blood pressure had been taken, and was ascertained to be 149 mm. Hg. The conjunctival flap was replaced and the wound dressed. The patient was given another trional and compound ipecacuanha powder, and she obtained a good night's rest. The tension of the eye next day was normal, and for the next three days it progressed satisfactorily. On the fourth day a slight ciliary injection came on, which was treated successfully by a weak solution of atropine for three days. The subsequent progress of the case was eminently satisfactory in every way, and when the patient was seen three weeks after the operation the vision was the same as it had been when first examined. The trephine hole was patent and acting, so as to cause the tension to be quite normal, and a total absence of pain had marked the progress of the case from the date of the operation.

The following are some of the points of interest in this case. 1. The untrustworthiness of a patient's statements as to the condition of the bowels. In this case their evacuation after calomel lasted over 24 hours, and on this a large responsibility rested for the onset of the eye condition. 2. The risks which a patient runs of being lulled into a sense of false security by the sole use of drug treatment. 3. The valuable means which the operation puts into our hands for overcoming the very great technical difficulties associated with operative interference in these acute attacks. 4. The importance of ascertaining the blood pressure immediately before operating, as on its finding depends the rate at which it is prudent to evacuate the aqueous.

Manchester.

A CASE OF HERPES FOLLOWING SPINA BIFIDA.

By C. STEWART WINK, M.R.C.S. ENG., L.R.C.P. LOND.

THE patient was a full-term female child, born on July 4th, 1911, and labour had been normal. On examination a raw area of the size of a five-shilling piece was found in the lumbo-sacral region. This was covered by a glistening membrane on the deep surface of which the structures of the spinal cord could be seen. On the 12th (eight days after birth) a crop of herpes appeared on the right side immediately below the last rib and extending from the spine posteriorly to the midline anteriorly and limited to one nerve area. On the 14th another crop appeared in the corresponding position on the left side. The temperature remained normal throughout, but the child became more and more cyanosed and died on the 25th.

I can find no record of herpes associated so closely with spina bifida.

Halstead.

MIDDLESEX HOSPITAL.—In the annual report of this institution, which was adopted at a meeting of the Board of Governors held on Nov. 30th, it was stated that by an extensive scheme of reorganisation the capacity of the general wards of the hospital had been increased from 318 to 330 beds. The Prince Francis of Teck Memorial Fund amounted to £28,240, including recent contributions of £2000 from the directors of the Savoy Hotel, being the proceeds of a fancy-dress ball, and £1000 from Sir Charles Wyndham. The Barnato-Joel Memorial was now nearing completion, and the wards would be opened in the New Year. The capacity of the Cancer Charity would then be 90 beds, which would be reserved for incurable patients. Visits had been paid to the new laboratories by three official representatives of bodies about to erect similar laboratories; one of these was from London, one from New York, and one from Rome. The report also stated that the male cancer patients have been transferred from the Greenhow ward on the top floor of the north-west wing to the Cancer Charity, and that the Greenhow ward had been altered and equipped for the accommodation of female medical cases. This ward will in future be called "Queen Alexandra" ward.