half an hour and "the colours came." About ten minutes later there were three bad pains and a baby boy of 8½ lb. was born. The afterbirth came in ten minutes. There was no great bleeding and there were no after-pains. "Everything was cleared up in one and a half hours and I was back to sleep again."

In September, 1939, she looked very well. There has been only one menstrual discharge since the birth of the last child, and it was not painful. There are no pains in the stomach, the bowels are regular without paraffin, and the varicose veins have disappeared. She still has palpitations and she cannot hold water longer than one hour. The rheumatism has nearly gone, which she ascribes to her new dry council house.

Commentary

Presacral neurectomy is very successful in the cure of a certain type of painful menstruation. The above case history illustrates this. The exploration was not undertaken very willingly because she had all the appearance of becoming a woman with chronic abdominal and pelvic symptoms. She was also liable to an unstable pulse rate and pains which are called rheumatic. In spite of her successive babies being somewhat smaller, it does appear that the neurectomy must have been the factor producing the easy and quick labour for the third child.

The type of dysmenorrhoea cured by presacral neurectomy has been called central plexalgia—a question-begging nomenclature—but there can be little doubt now that the term enshrines experience. One has the impression that it occurs in women who are not likely to marry and if married are not likely to have children. To convert such an impression into an ascertained statistical fact would be laborious and especially difficult, as the indications for the operation are by no means common. A logical difficulty, but not of great importance, is that the operation is often combined with some other surgical procedure. In one of Reeb's cases and in the case reported there was a history of mild appendicitis. It would not be right to associate central plexalgia with appendicitis, but rather with some unsatisfactory state referred to the abdominal organs.

Conclusions

Presacral neurectomy has no bad influence on any part of the process of pregnancy.

In some patients, probably only a small proportion, the first stage of labour is painless and rapid or else unobserved.

REFERENCES

- Collins, C. G. (1938). *New Orleans med. surg. J.*, **91**, 75.
Cotte, G. (1937). *Amer. J. Obstet. Gynec.*, **33**, 1034.
Davis, A. A. (1933). *Trans. North Engl. Obstet. Gynaec. Soc.*, **34**, — (1934). *British Medical Journal*, **2**, 1.
Donaldson, M. (1936). *Proc. roy. Soc. Med.*, **29**, 947.
Keene, F. E. (1935). *Amer. J. Obstet. Gynec.*, **30**, 534.
Learmonth, J. R. (1937). *Brit. J. Surg.*, **25**, 426.
Reeb, M. (1937). *Gynécologie*, **36**, 617.
Wetherell, F. S. (1935). *Amer. J. Obstet. Gynec.*, **29**, 334.

Closed Cerebral Injuries.—Reduction of the intracranial pressure to normal by repeated lumbar punctures is the mainstay in the treatment of closed cerebral injuries, according to Kallius. Several illustrative examples of cases so treated are given, and the results are said to be uniformly good. Systematic re-education in convalescence by graduated exercises must be carried out until the patient returns to his former occupation.—Conservative Treatment of Closed Cerebral Injuries. H. U. Kallius.—*Beitr. klin. Chir.*, May 31, 1939, **169**, 428.

SULPHAPYRIDINE IN THE TREATMENT OF ACUTE URETHRITIS

BY

N. SEDDON TAYLOR, M.B., Ch.B.

Assistant Venereal Diseases Medical Officer to the Central Clinic of the City and Port of Liverpool

Since the introduction of sulphanilamide, uleron, sulphapyridine (M & B 693), etc., into medicine, innumerable articles lauding these preparations in the treatment of all kinds of diseases have appeared in the medical and lay press; one or other of these drugs has even been termed specific for the common cold. There is no doubt, however, that they are of especial value in pneumonia, meningitis, and gonorrhoea. With the last-named of these I am dealing in this paper, and I believe that a short account of 100 consecutive cases of male urethritis treated with sulphapyridine without thought of publication from start to finish might be of interest and value. These cases have not been selected in any way, but have been treated by the method in use at this clinic since sulphapyridine became part of the routine treatment for gonorrhoea.

Treatment

On the patient's first attendance, if the urethral discharge has been present for less than seven days, pil. euflavine 1/2 grain is given thrice daily, and complete lavage with mercury oxycyanide 1 in 8,000 is carried out once daily for a week; then follow fourteen days of sulphapyridine administration (with instructions as to diet and laxatives), 2 grammes a day (four tablets) only being given. During the first seven days of this fortnight mercury oxycyanide irrigations are continued, and for the second week potassium permanganate 1 in 8,000 is substituted; all irrigations are given at a temperature of 105° F. If the infection has been present for more than seven days at the time of the first attendance sulphapyridine is started at once and is given for fourteen days as described above.

Whatever length of time the disease has been present when the patient is first seen, in the absence of acute or subacute posterior urethritis the mode of irrigation remains the same, so that in cases where the condition has existed for more than a week the third week of irrigations—that of potassium permanganate—is not accompanied by chemotherapy. The remainder of the treatment applies equally to all cases.

At the end of the third week an oxycyanide lavage is given, after which prostatic massage is performed (provided always that the urine is clear) and the resultant bead examined. If the bead is negative for pus and gonococci the patient is given complete lavage with silver nitrate 1 in 10,000 for three days, followed by anterior irrigation for a further three days with 1 in 5,000 silver nitrate; he then has a week without any treatment and is advised to take alcohol in moderation.

On his return the gonococcal complement-fixation test is made and he is given an intradermal injection of a 200-million dose of a pure gonococcal vaccine as a provocative. In a further two days the arm is examined for local reaction, and a Béniqué sound is passed and the left vesicle massaged, the resulting bead being microscopically examined. On the next day the right vesicle is similarly treated. If there is no urethral discharge following the silver nitrate or the alcohol, no discharge or local reaction following the vaccine, a negative complement-fixation test, an easy passage of the sound, and pus and gonococci are absent from the vesicular beads, the patient is considered to be cured. It will be seen, therefore, that if a patient

attends regularly and passes all the tests on the first occasion, the time taken from the first attendance to that of discharge is between five and six weeks.

Results

This method of treatment has produced 96 per cent. of cures in the series of 100 cases, divided into 64 per cent. absolute cures and 32 per cent. apparent or clinical cures (those who failed to return for some of the final tests but whose urine was clear, and who had passed all tests until they defaulted). The percentage of failures was therefore 4. Three cases developed a rash towards the end of the second week, one had severe mental depression, and three complained of considerable nausea. One of those with a rash defaulted before final tests had been carried out, but the rest of those who suffered from treatment complications were completely cured.

It must not be thought that all the cures were established in between five and six weeks: many of the patients were not regular in their attendances, and consequently their cure took varying longer periods. The four failures are not ascribable to any fault in the method of treatment, but in three cases were due to gross irregularity of attendance, and in one to a probable reinfection, to which the patient would not admit. No patients who defaulted before the prostatic bead was examined are included, since there is no means of estimating their condition.

If these results are on an average better than those obtained elsewhere it would appear that this is due to the following reasons: (1) No attempt was made to discover the shortest time in which it is possible to obtain a cure by the use of sulphapyridine. (2) Natural immunity was allowed to be in the ascendant before chemotherapy was begun. (3) Four tablets daily of sulphapyridine are actually more effective therapeutically than any other number. (4) Irrigations at a constant temperature of 105° F. were given daily for the first four weeks.

Commentary

In the modern treatment of gonorrhoea there is a growing tendency to cut irrigations down to a minimum and in some cases to dispense with them altogether. This may be justifiable in private practice, where the intelligence of the patient is as a rule above the average and where the personal success of the venereologist is often directly dependent upon rapidity of cure. On the other hand, as it has taken years of propaganda to make the public realize to some extent the seriousness of venereal diseases, it seems a thousand pities suddenly to undo all that good work by informing them that gonorrhoea can now be cured by taking a few tablets. It is surprising how many patients of the clinic class (and they form the large majority of V.D. sufferers) even to-day have little or no appreciation of the difference between gonorrhoea and syphilis.

If clinics cut down irrigations to a minimum or dispense with them altogether there will without doubt be a greater incentive for patients to cease attending as soon as the discharge has stopped: all venereologists must know of many a case in which this has occurred after two or three tablets of sulphapyridine. If the only use of lavage in modern clinic practice is to give the patient something to attend for, then it does serve a very useful purpose. Allowing the patient to think that gonorrhoea is of no account will in the end only lead to greater promiscuity, with a consequent increase in both gonorrhoea and syphilis.

Addendum

Since the completion of the above article it has occurred to me that a report on 100 cases may not be very convincing. Accordingly a further series of 150 consecutive cases has been analysed, and these have shown a similar result. Furthermore, the country is now at war. Previous wars have invariably been responsible for a marked increase in the incidence of venereal disease, and although that increase has not been noted as yet, that is no foundation for believing that none will occur. As all thinking people must realize, times of national stress are very apt to upset and undermine moral standards. Taking these facts into consideration, together with the fact that the great majority of male venereal disease is to be found in otherwise healthy men of military age, it would seem that a short and successful method of treating gonorrhoea is of even greater importance now than at the time when this article was written (just before the outbreak of hostilities). While not maintaining that the method advocated is incapable of improvement, it would seem a significant fact that it has stood very satisfactorily a test of twelve months, and the results obtained have been consistently good.

My grateful thanks are due to Dr. Fraser, medical officer of health, and to Dr. A. O. F. Ross, senior V.D. medical officer, both of the City and Port of Liverpool, for permission to publish the figures in connexion with the cases.

RESULTS OF TREATMENT OF GONORRHOEA WITH SULPHAPYRIDINE FURTHER OBSERVATIONS

BY

ERNEST E. PREBBLE, M.D.

Late Senior Assistant V.D. Medical Officer, Seamen's Dispensary, Liverpool

Since I published the preliminary results of the treatment of sixty-five cases of acute gonorrhoea by means of sulphapyridine (M & B 693) in the *Lancet* last November 246 further cases in all stages of the disease have been dealt with. The results of these have been more in conformity with those published by other observers. In the early series of cases I obtained only 57 per cent. of cures, but in the light of further experience this requires some explanation. In the former series cures were considered to be only those cases which responded to one course of the drug—that is, a course of 3 grammes (six tablets) daily for six days with or without irrigation. Since then a larger number of cases have been treated, the routine being to give 3 grammes daily for the first week, followed by 1.5 grammes daily for the second week. In almost all cases irrigations of 1 in 8,000 oxycyanide of mercury at a temperature of 105° F. were employed in addition. The cases were under observation at the Seamen's Dispensary or at Mill Road Infirmary, Liverpool.

Results

Cases were divided into "acute" and "chronic." Those classed as acute were all patients reporting at the clinics who had received no previous treatment for their disease and in whom gonococci were found to be present; those classed as chronic had received various degrees of treatment before reporting. In this latter group gonococci were not invariably found, but there was good reason to