para, was delivered of a breech with legs extended, a leg having to be brought down. The child did very well, and the mother suffered no undue shock. In 3 cases persistent occipito-posterior positions have been manually rotated and delivery made with forceps, without undue hurry being experienced, and neither mother nor child appeared to suffer in any way.

In 6 cases the head was found to be unexpectedly "tight," and considerable traction was required to deliver the child. In 4 of these a perineal tear resulted, but this was repaired without any additional anaesthetic.

Evipan has been given, in rather smaller dose, to 7 patients just before the birth of the head, when forceps were not used. In one case trouble was experienced with the child after delivery—there being some delay in respiration. In the other 6 cases the children cried at once and there were no neonatal complications. In no case was there any excessive post-partum bleeding, and the placenta always appeared to separate quickly and easily.

Description of Technique

The technique which is now adopted has been modified with increasing experience, and I hope that the following brief description may be of value to others.

Having decided to deliver the patient, she is placed in the left lateral position and obstetric aid straps are applied. The type used has been that described by C. J. Penny (1933): one strap encircles the abdomen and is affixed to the head of the bed; the other holds the patient's hips flexed and passes over her neck. The buttocks and perineum are then thoroughly swabbed with dettol cream, and a swab covered liberally with dettol cream is left in the vagina.

The operator, gowned and masked and with bare washed hands, is now ready to administer the evipan. A prop is placed between the patient's jaws, and the nurse, standing by her head, helps in steadying the arm: a firm grip above the elbow will make the veins in the antecubital fossa more obvious. In every case 10 c.cm. of the 10% solution of evipan has been used. The first 3 or 4 c.cm. is injected quite quickly, and after a pause the remainder of the dose is given rather more leisurely—about a minute being taken over the whole procedure. In all my cases I have had the help of only the nurse or midwife; she remains at the patient's head, holding the chin well forward, and from the same position she is able later to support the patient's right leg by taking hold of the strap.

The operator now re-washes his hands and dons sterile gloves. The dettol cream swab is extracted from the vagina and is used for one last application to perineum and buttocks. Sterile towels are then used to cover exposed areas, after which a catheter is passed, the receiver being held by the nurse, who has it ready beside her. At this stage the forceps are applied to the child's head and the extraction is carried out in the ordinary way. When there has been the need for earlier sedation by chloral and bromide, or morphine, a very complete anaesthesia has been experienced, with a patient perfectly still. In one or two cases in which there has been no previous medication slight movement of the legs has been experienced, and it is for this reason that the obstetric straps are advised, for with them I have never been in any way inconvenienced by this tendency to move.

As has already been said, the children give no trouble; the third stage is passed rapidly, and the patient is usually recovering consciousness by the time one is ready to leave her. One of the ergot preparations is injected after the birth of the placenta, and it is always my practice to record

the systolic blood pressure before leaving the patient. Readings of under 100 mm. Hg (which have not been met with in this series) should be taken as a warning of incipient shock and should be countered by the usual methods.

During the past six months this method of anaesthesia has been adopted by Dr. C. J. Penny, honorary obstetrician to the Royal Hampshire County Hospital. He tells me that he has used it in over 20 cases, and that it has been uniformly satisfactory.

Summary

The advantages of intravenous anaesthesia in the easier obstetric operations are discussed.

In over 50 cases in which evipan sodium in 1-gramme doses has been used it has given entire satisfaction, and there have been no complications in the progress of mother or child.

A brief account of the technique is given.

REFERENCE

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EFFECT OF BENZEDRINE ON THE OCULOGYRIC CRISES OF PARKINSONISM

BY

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In the last few years several articles have appeared in American medical journals reporting the beneficial results which may be expected when benzedrine is administered in conjunction with stramonium or hyoscine to cases of post-encephalitic Parkinsonism (Solomon, Mitchell, and Prinzmetal, 1937; Finkelman and Shapiro, 1937; Matthews, 1938; Davis and Stewart, 1938). Of the symptoms discussed it would appear that oculogyric crises react best to this treatment—in fact, three of the four articles referred to claim that this symptom was relieved in every case in which it occurred.

The investigation described below was carried out on patients at the National Hospital for Nervous Diseases, Queen Square, and at the Royal United Hospital, Bath, in an attempt to reproduce these uniformly good results. It is impossible to control an investigation of this type accurately, certain criticisms of the dosage, and the shortness of the period of observation in some cases, being bound to arise. It is felt, however, that by concentrating on an isolated symptom, such as the oculogyric crisis, which can be recorded by the patient, a more accurate impression of the effect of benzedrine on post-encephalitic Parkinsonism will be obtained than by considering rigidity, tremor, or sleep disturbance, which are obviously more difficult to assess.

Seventeen patients were observed while under treatment with stramonium, hyoscine, or some similar drug, and a record was kept of their oculogyric attacks over periods ranging from two to twelve weeks. Benzedrine was then given in various doses up to 30 mg. a day in addition to the previous treatment, and the attacks were again recorded over similar periods. In two cases benzedrine was given alone.

In the table the average number of attacks per week is stated, as it is considered that this method will give the most accurate comparison between the cases. It should be realized, however, that in patients showing a small number

of attacks this figure will not give such a true indication of the response to treatment as in those with a larger weekly average.

Summary of Results

The results of the 17 cases treated were as follows: good, 4 (23.5%); moderate, 5 (29.4%); poor, 8 (47.0%).

Table of Results

No.	Sex and Age	Treatment	Average No. of Attacks per Week	Remarks	Result
1	M. 20	Extr. stramon. sic. 0.25 mg., q.d.s. Original treatment + benzedrine 10 mg. b.d. Original treatment only	3.0 1.4 2.5	No improvement in other symptoms Stated that he missed benzedrine	Moderate Relapse when benzedrine stopped
2	F. 31	Placebo Tr. stramon. $\mathbb{M}$ xxx, tr. nucis vom. $\mathbb{M}$ x Above treatment + benzedrine 10 mg. b.d. Benzedrine increased to 15 mg. mane, 10 mg. midday Tr. stramon. and tr. nucis vom. only	1.3 0.75 1.25 1.0 5.0	Attacks of shorter duration	Nil Increase in attacks when benzedrine stopped
3	M. 35	Extr. stramon. sic. 0.25 mg. b.d. Original treatment + benzedrine 5 mg. b.d. Original treatment only	1.83 1.33 1.33	B.P. 165/105 Dizziness if benzedrine taken on empty stomach. Thought he was much improved Said there was not much difference when benzedrine stopped	Nil
4	F. 19	Tr. stramon. $\mathbb{M}$ xxx, ac. hydrobrom. dil. t.d.s. Original treatment + benzedrine 10 mg. b.d. Original treatment only	1.0 0.25 0.5	General improvement Said she missed benzedrine	Good Some improvement maintained when benzedrine stopped
5	M. 22	Hyosc. hydrobrom. gr. 1/100, atropin. sulph. gr. 1/250, tr. stramon. $\mathbb{M}$ xxv, t.d.s., luminal gr. 1/2 b.d. Original treatment + benzedrine 10 mg. b.d. Original treatment only	2.0 1.25 1.5	Said benzedrine improved symptoms, but did not miss it when it was stopped	Good Improvement maintained when benzedrine stopped
6	F. 22	Hyosc. hydrobrom. gr. 1/100 t.d.s. Original treatment + benzedrine 10 mg. b.d. Original treatment only	0.67 1/1.33 0.67	B.P. 150/75 Did not take benzedrine regularly. Morning headache while taking it	Nil
7	M. 23	Tr. stramon. $\mathbb{M}$ xlvt d.s. Original treatment + benzedrine 5 mg. b.d. Original treatment only	1.5 1.1 1.0	Attacks lasted 1 hour each The majority of attacks lasted 1/2 hour each Said tremor was worse without benzedrine	Moderate Improvement maintained when benzedrine stopped
8	F. 27	Extr. stramon. sic. 0.25 mg. t.d.s. Original treatment + benzedrine 5 mg. b.d. Original treatment only	2.5 1.5 1.62		Ditto
9	M. 27	Tr. stramon. $\mathbb{M}$ lx, hyosc. hydrobrom. gr. 1/100, t.d.s. Original treatment + benzedrine 10 mg. b.d. Benzedrine increased to 15 mg. mane, 10 mg. midday Benzedrine 15 mg. mane, 10 mg. midday Original treatment + benzedrine 15 mg. mane, 10 mg. midday Original treatment only	2.0 1.25 1.5 3.0 2.0 0.75	No attacks for 14 days, then 4 attacks in 14 days	Moderate Improvement on benzedrine and stramon. and hyosc. Worse on benzedrine alone Improvement maintained when benzedrine stopped

Table of Results (continued)

No.	Sex and Age	Treatment	Aver. No. of Attacks per Week	Remarks	Result
10	F. 19	Hyosc. hydrobromide gr. 1/150, tr. stramon. $\mathbb{M}$ lxxx, tr. nucis vom. $\mathbb{M}$ iv, t.d.s., luminal gr. 1/4 nocte Original treatment + benzedrine 10 mg. b.d. Original treatment only	0.75 1.0 0.87	Took benzedrine irregularly for part of time, but stated that attacks were improved. No worse without benzedrine	Nil
11	F. 29	Tr. bellad. $\mathbb{M}$ vii, tr. stramon. $\mathbb{M}$ xv-xxv t.d.s. Benzedrine 5 mg. b.d. only Original treatment + benzedrine 5 mg. b.d. Original treatment No treatment	Almost daily 3.7 1.7 Almost daily "	B.P. 145/90. Mitral stenosis Pain in chest like dyspepsia 2 hours after benzedrine	Good Improved on benzedrine only. Still more improved on benzedrine, belladonna, and stramonium. Relapse on stopping benzedrine
12	F. 48	Extr. stramon. sic. Original treatment + benzedrine 10 mg. b.d. Original treatment + benzedrine 15 mg. mane, 10 mg. midday Original treatment only	2.5 2.5 2.25 (?) 2.2	Unreliable record kept by patient	Nil
13	M. 26	Tr. stramon. $\mathbb{M}$ x hyosc. gr. 1/200 Original treatment + benzedrine 10 mg. b.d. Original treatment + benzedrine 15 mg. mane, 10 mg. midday Original treatment only	0.75 slight 0.33 severe 0.53 slight 0.18 severe 0.33 slight 0 severe 0.5 slight 0.33 severe		Good Relapse on stopping benzedrine
14	M. 22	Tr. stramon. $\mathbb{M}$ xx t.d.s. Original treatment + benzedrine 10 mg. b.d. Original treatment + benzedrine 15 mg. b.d. Original treatment only	2.0 2.5 2.5 3.0	History of head injury W.R.++++	Nil
15	M. 27	? Original treatment + benzedrine 10 mg. b.d. Original treatment + benzedrine 5 mg. b.d.	Several daily Worse 3.4	Sleepless Still sleepless	Moderate Best result with small dose of benzedrine
16	F. 22	Acid. hydrobrom. dil. $\mathbb{M}$ v, tr. lobelia $\mathbb{M}$ v, tr. stramon. $\mathbb{M}$ cxx t.d.s., tab. luminal gr. 1/2 nocte Original treatment + benzedrine 10 mg. b.d. Original treatment + benzedrine 15 mg. mane, 10 mg. midday Original treatment only	6.5 6.0 7.25 6.0		Nil
17	M. 22	Hyosc. gr. 1/100 b.d. Original treatment + benzedrine 5 mg. b.d. Original treatment + benzedrine 10 mg. b.d. Original treatment + benzedrine 10 mg. mane, 15 mg. midday Original treatment + benzedrine 15 mg. b.d.	1.0 0.75 0.75 0.75 1.0	Palpitation Pulse 136, B.P. 125/70. No cardiac enlargement, but had a generalized systolic murmur and accentuated pulmonary second sound. Tachycardia persisted some months. Signs suggested mitral regurgitation	Nil

This shows some degree of improvement in 53% of cases. In Cases 1, 2, 11, and 13 the attacks increased when benzedrine was stopped. In Cases 4, 5, 7, 8, and 9 some improvement was maintained when benzedrine was

stopped. In Cases 9 and 11 benzedrine was given alone: Case 9 was worse, but improved when the treatment was combined with stramonium and hyoscine; Case 11 improved, but a better result was obtained when belladonna and stramonium were given as well. Of the cases not improved, one (Case 14) gave a history of head injury and showed a strongly positive Wassermann reaction.

Complications.—In 2 cases of mild hypertension one patient complained of dizziness (Case 3) and one of headache (Case 6). In 2 cases of mitral disease one patient complained of pain in the chest (Case 11) and the other (Case 17) developed a persistent tachycardia which resisted treatment for a considerable time. Only one patient complained of sleeplessness.

Discussion

These results confirm the general impression that in the oculogyric crisis of Parkinsonism benzedrine acts better if combined with drugs such as stramonium or hyoscine. It is interesting to note that 5 patients maintained their improvement even when the drug was stopped and they returned to their original treatment. This, of course, may have been merely coincidence.

In considering the complications which occurred, it would appear necessary to exercise caution in those cases which show signs of hypertension or heart disease, as it will be noted that certain symptoms, including a prolonged tachycardia, occurred in such cases.

The results obtained by American authors are summarized as follows:

Author	Dosage of Benzedrine	Percentage of Cases Improved	No. of Cases Treated
Solomon, Mitchell, and Prinzmetal (1937)	10-20 mg. b.d. or t.d.s. (gave up to 160 mg. p.d.)	100%	8
Finkelman and Shapiro (1937)	20-30 mg. p.d.	100%	7
Matthews (1938)	15-90 mg. p.d.	Improvement reported 100%	?
Davis and Stewart (1937)	40-60 mg. p.d.		23

It will be seen that comparison can only be made with those cases described by Finkelman and Shapiro, who gave doses of benzedrine similar to those employed in my own series. I was unable to reproduce their uniformly good results, having had 53% successes as against the 100% which they reported. The remaining three groups of American workers used much larger doses, and I cannot from personal experience say if correspondingly good results would have been obtained had I given similar amounts of benzedrine in my cases.

Conclusions

Benzedrine, even in small doses, may be expected to give relief to about 50% of patients with oculogyric crises if administered with drugs of the belladonna group. Larger doses are worthy of trial if a careful watch is kept on patients with cardiac disease or hypertension.

My thanks are due to the honorary staff of the National Hospital, Queen Square, for allowing me to publish cases which I treated while assistant medical registrar to that hospital, and to Dr. R. G. Gordon of the Royal United Hospital, Bath, for his permission to include Case 17. I also wish to thank Messrs. Menley and James, who kindly supplied the benzedrine used in the investigation.

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Clinical Memoranda

Treatment of Varicose Ulcer with Eczema

To-day the standard treatment of varicose ulcers is by "elastoplast." There are, however, a certain number of cases that are intractable; they appear to be those complicated by eczema. The skin is degenerated, being shiny, purplish, and scaly. Here are four case histories, the first three being consecutive.

CASE REPORTS

Case 1.—A woman aged 45 had "white leg" following pregnancy seventeen years previously. An ulcer appeared two years later, and persisted until June, 1939, when treatment by elastoplast was started. It was 3 in. by 4 in. in area, and was situated about 2 in. above the internal malleolus. After a year the ulcer measured 2 in. by 1 in. Further treatment failed to reduce its size, and another smaller but very painful ulcer, about one-half inch across, appeared. The whole leg was the seat of eczema by now. Treatment by reversed elastoplast was tried without success. In despair a "viscoplast" bandage (a bandage impregnated with Unna's paste) was applied in three thicknesses. It was painful at first, but after a few days the pain ceased. About this time the patient was confined to bed for two weeks on account of laryngeal spasm. A certain amount of discharge occurred; this was absorbed by packing with wool. On removal three weeks later the ulcer had almost disappeared, and a second application resulted in a complete cure. For the last six months she has worn a crêpe bandage. Apart from the two weeks in bed, which was a help, she has done her ordinary work as a farmer's wife.

Case 2.—A woman aged 64 had suffered from a varicose ulcer off and on for twenty-nine years. When she came for treatment it was the size of a shilling. Elastoplast was applied twice in five weeks, and resulted in great improvement, but she refused to have it applied again. Viscoplast was tried, with the result that the ulcer healed soundly—the first occasion since it appeared. She did her work all the time.

Case 3.—A woman aged 67 had a small painful ulcer over the internal malleolus, with degeneration of the surrounding skin. Here "viscoplast" was applied at the outset, causing much pain for the first few days. It was left in position for three weeks, when the ulcer was found to be soundly healed. She was able to do her housework after the first few days.

Case 4.—A man aged 65 had for six years the worst varicose eczema I have seen. An abscess had formed over the patella, possibly the result of septic absorption. "Elastoplast" was applied twice with some benefit, then followed two applications of "viscoplast," each kept on for three weeks. The man, a butcher, is on his feet a great deal, but directly the abscess over the patella had healed he carried on with his work. He now wears a crêpe bandage, and declares he is better than for years. The skin is still purplish, but is not ulcerated or scaly.

London, W.1.

A. P. BERTWISTLE, F.R.C.S.Ed.

An award of the Dr. Jessie Macgregor Prize in Medical Science will be made in July to the applicant who presents the best record of original work in the science of medicine. Such work may be published or unpublished, but must not have been published earlier than three years prior to July, 1941. The value of the prize is not less than £50 and is open to medical women who are graduates in medicine of the University of Edinburgh, or who have taken the Scottish triple qualification, and who before becoming qualified, have studied medicine for at least one year in Edinburgh. The successful applicant shall, within six months following the award, deliver a lecture to the medical profession in Edinburgh on the subject of the work for which the prize has been awarded, such lecture to be entitled "The Dr. Jessie Macgregor Lecture." Applications marked "Dr. Jessie Macgregor Prize" must reach the Convener of Trustees, Royal College of Physicians, Edinburgh, 2, not later than June 30.