ACETYLCHOLINE THERAPY IN EPILEPSY

BY

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A diminution in the number of fits of epileptics following administration of choline derivatives has been recorded in French journals. The following investigation of the subject was carried out at Cane Hill Mental Hospital with the permission and help of Dr. Lilly, the medical superintendent.

METHOD

In order to avoid any risk of decomposition the acetylcholine bromide solution was prepared immediately before injection. The volume of the injection was maintained at 1 c.cm., and sterile distilled water was used as the solvent. Twenty-one epileptic patients were treated by acetylcholine injections, and a similar number of control epileptic patients were given an equal volume of saline hypodermically. The dose of acetylcholine was, during February, 1933, 0.12 gram once daily. During March the dose was 0.12 gram twice daily. All medicines that the patients had been receiving before the course were continued unchanged. In April, 1933, seven patients were given increasing doses of acetylcholine bromide until they were receiving 0.5 gram hypodermically twice daily. The tables show the numbers of fits per month compared with the average numbers per month of 1932.

Choline Treatment						Saline Controls					
Case No.	Age at onset of fits	Age in 1933	Average fits per 28 days, 1932	February 1 to 28, 1933	March 1 to 28, 1933	Case No.	Age at onset of fits	Age in 1933	Average fits per 28 days, 1932	February 1 to 28, 1933	March 1 to 28, 1933
1	7	50	6	5	8	22	—	40	5	4	9
2	12	41	16	19	21	23	21	43	15	14	21
3	14	48	9	10	19	24	—	49	9	9	13
4	—	—	1	1	2	25	—	65	1	0	1
5	18	48	1	0	0	26	10	54	1	1	0
6	—	48	1	0	0	27	11	43	4	5	9
7	12	32	2	2	3	28	—	37	15	12	20
8	13	32	18	24	24	29	13	29	11	22	9
9	7	64	9	4	3	30	—	62	7	5	6
10	15	44	9	1	2	31	19	37	8	9	4
11	35	60	2	0	4	32	—	60	3	2	3
12	2	39	6	5	5	33	12	35	7	4	8
13	19	26	5	0	0	34	23	33	5	7	5
14	1	37	0	0	0	35	—	58	0	0	0
15	—	56	7	9	7	36	18	57	5	6	8
16	13	40	10	10	7	37	21	48	8	9	10
17	12	44	6	10	9	38	—	44	4	8	5
18	—	62	4	4	4	39	—	60	4	5	11
19	5	54	10	8	9	40	—	44	12	14	9
20	—	62	3	5	1	41	—	55	2	3	1
21	26	53	3	1	4	42	—	48	4	7	6
Total ...		...	128	118	132	Total ...		...	130	146	158

Case No.	Average per 28 days, 1932	April 1 to 28, 1933	Case No.	Average per 28 days, 1932	April 1 to 28, 1933
3	9	14	23	15	14
16	10	12	24	9	8
17	6	9	33	7	12
19	10	7	Total ...	66	76

An attempt was made to ascertain whether the intracranial pressure was affected by the hypodermic injection of 0.5 gram acetylcholine bromide. In the case of six patients and six controls the cerebro-spinal fluid pressure was measured immediately before, and at one-minute intervals following, the injection. The observations were continued for ninety minutes after the injection. No significant alteration of the cerebro-spinal pressure was noted. No subjective or objective symptoms following the injections were noted in any case.

The conclusion arrived at is that acetylcholine bromide does not diminish the number of epileptic fits. No change in the character of the fits or of the mental condition of the patients was observed during the course.

THE USES AND DANGERS OF COSMETICS

BY

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It has been estimated that the fourth largest industry in the United States of America is concerned with the manufacture of cosmetic preparations. If they are, as is said, less commonly used in this country, they enter none the less into the daily life of an immense number of women. And it is therefore a matter of interest, not only to the dermatologist but also to the practitioner, to consider their potentialities for good or ill.

A formidable list can be made out of cosmetic constituents which have produced harmful results. I think the length of the list has sometimes influenced the views of writers on the subject, and obscured the fact that many of these substances have caused injurious effects only in rare cases, and have otherwise been found harmless or even beneficial. I do not propose to make an exhaustive list of substances which have proved irritating or toxic in one or two recorded instances, but only to consider a few common preparations and their potentially harmful ingredients.

SOME COMMON PREPARATIONS

Powders.—Toilet powders consist of a mixture of animal or vegetable powders, colouring matter, and perfume. The vegetable powders include rice, wheat, corn flour, starch, acacia, and tragacanth. The mineral powders in use are chalk, talc, kaolin, magnesium carbonate, bismuth nitrate or carbonate, and zinc oxide. The dyes may be of vegetable origin or may be aniline derivatives. Various ethereal oils are used as perfumes, and orris root is frequently employed as a fixative. The majority of these substances are entirely harmless; and unperfumed, untinted powders are used in dermatological practice. The most dangerous powder ingredient, to which most of the recorded instances of poisoning from this source are due, is lead. Either in the form of lead acetate or lead carbonate this seems to have been a very common powder ingredient in the past, though the use of lead acetate is surprising since it is so easily soluble that a shower of rain would dissolve it away. But its danger has