oxylase, seems of particular interest and has to our knowledge not yet been tested in patients with the carcinoid syndrome. A definite reduction of the number of flushes and their duration in combination with deseril was observed in our patient. No hypotension or other adverse side-effects occurred with the two drugs.

Another substance, alpha-methyl-3-4-dehydroxy-D-L-phenylalanine (M.K. 351, Nr. C-2294, Merck Sharp and Dohme, Rahway, N.J.), has shown definite suppression of the flushes in our patient without affecting the diarrhoea (Dubach and Blumberg, 1961 ; Collini, 1961). However, this latter serotonin antagonist caused alarming side-effects in the psychical behaviour of the patient, necessitating discontinuance of the drug.

SUMMARY

Two serotonin antagonists, 1-methyl-D-lysergic acid butanolamide tartrate (UML 491 ; deseril) and 1-[*p*-dimethylamino - benzyl] - 2[5 - methyl - 3 - isoxazolylcarbonyl]-hydrazine (Ro 5-1025), were given by mouth to a patient with the carcinoid syndrome. The former drug reduced or stopped the diarrhoea ; the latter, when given together with deseril, reduced the flushes from four to six to one to two a day. These effects were maintained over a period of several months to the benefit of the patient, who was able to continue to work up to one month before his death. No ill-effects of the two drugs were found.

We are grateful to Dr. Cerletti and Dr. Rutschmann, of Sandoz A.G., Basle, and to Professor A. Pletscher, of F. Hoffmann-La Roche & Co., A.G., Basle, for supplies of the drugs.

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Medical Memoranda

Bilateral Phaeochromocytoma associated with Carcinoma of the Thyroid

Reports indicate that these two rare conditions coexist more often than might be expected by chance alone. This brief history of a further case is therefore of interest.

CASE REPORT

A single woman aged 29 was sent to hospital on August 7, 1960, as an emergency case by her general practitioner with a provisional diagnosis of "meningitis." She complained of the recent onset of episodes of severe frontal headaches and intermittent attacks of sharp pain in the neck. These attacks were associated with a sensation of "pins-and-needles" in the hands, and they lasted on each occasion for a few minutes. At the time of admission they had become increasingly frequent and were occurring about every half-hour. She also complained of a choking sensation, "as if something was stuck in my throat."

Three months prior to admission she had had pain in her left leg, and this was attributed to protrusion of the lumbar disk. Laminectomy had been performed at another hospital after full radiological examination. It is of interest to note in retrospect that at this time her blood-pressure fluctuated between 170/140 and 120/80. There was then no radiological evidence of metastases.

On admission her pulse was 100 and regular and blood-pressure 145/120. The fundi showed bilateral early papilloedema. The thyroid gland was enlarged and nodular, its consistency being firm. No other clinical abnormality was detected. A clean specimen of urine showed heavy glycosuria, albuminuria, and a small number of red cells and leucocytes. There were also a few granular, cellular, and hyaline casts. Blood chemistry, apart from showing elevated blood sugar and blood urea, was normal. *X*-ray examination of the chest could not be undertaken, as the least movement of the patient caused elevation of her blood-pressure to dangerous levels.

On the day after admission an "attack" was observed. The patient perspired very heavily and complained of severe frontal headache and agonizing pain in the back of the neck. Her extremities were cold and mottled in livid patterns. The pupils were widely dilated. The pulse rate was 128 and blood-pressure 210/150. A provisional diagnosis of hypertension due to phaeochromocytoma was made.

After this episode her blood-pressure was recorded every two hours. It fluctuated widely, the highest being 240/160 and the lowest 120/60. Her symptoms were so distressing that it was necessary to reduce the blood-pressure by hypotensive and sedative drugs. It was ultimately controlled at 170–180/110–100 approximately by pentolinium tartrate 10 mg. subcutaneously four-hourly, piperoxan 5 mg. subcutaneously 12-hourly, and chlorpromazine 50 mg. intramuscularly four-hourly. Further stabilization was achieved by raising the head or the foot of the bed.

A 24-hour specimen of urine showed a large excess of catechol amines. As the condition was deteriorating, urgent surgical treatment was advocated even before the result of the above investigation was known.

On August 13 a laparotomy was performed by Mr. Herbert Smith. Soft smooth suprarenal swellings about 2 in. (5 cm.) in diameter were palpated on each side. There were multiple hard nodules in the liver. Macroscopically they were typical of secondary metastases from carcinoma. In view of this a biopsy from one of the nodules in the liver was taken and the abdomen closed. The patient's condition continued to deteriorate, and she died on August 14, seven days after admission.

Post-mortem Examination.—The salient facts were slight hypertrophy of the left ventricle, widespread neoplastic deposits throughout the body except the brain, with a large nodule in the thyroid. There were bilateral suprarenal tumours, each about 3 by 2 in. (7.5 by 5 cm.) and cystic, containing clear fluid. Histological examination of post-mortem material and of the liver biopsy taken at operation showed a moderately differentiated adenocarcinoma of the thyroid gland with numerous metastases. The suprarenal tumours were phaeochromocytomata and showed no evidence of malignancy.

DISCUSSION

In recent years several reports have appeared of the association of these two extremely rare conditions.

In a review of 53 cases from the literature Eisenberg and Wallerstein (1932) brought to light a number of reports of single cases in which phaeochromocytoma has been associated with neoplasms in various organs, including one in which it was associated with carcinoma of the thyroid. It would appear, however, from subsequent reports that the only significant association is that with carcinoma of the thyroid. In other cases carcinoma of the thyroid has appeared months or even

years before the establishment of a diagnosis of phaeochromocytoma. Beer, King, and Prinzmetal (1937) reported a case in which adenocarcinoma of the thyroid was removed surgically nine years before an operation for left adrenal phaeochromocytoma. Muntz, Richey, and Gatch (1947) reported a case with bilateral adrenal tumours and associated metastatic thyroid carcinoma. A hemithyroidectomy had been performed nine years previously, but no histological report was quoted. Dick, Ritchie, and Thompson (1955) described a phaeochromocytoma which was successfully removed surgically. Eighteen months later the patient developed a mass in the left side of his neck which was subsequently confirmed as being carcinoma—developing in a simple adenoma of the thyroid.

It is interesting to note that in the present case the onset of the attack was so rapid and the symptoms referable to the central nervous system were so striking that the general practitioner made the provisional diagnosis of "meningitis."

Four previous cases have been found in the literature, and a fifth one is reported in this communication. Four of these five patients are females. Their ages varied from 25 to 63 years, and the three youngest were 25, 26, and 29. No theory has been proposed to explain why phaeochromocytoma and carcinoma of the thyroid should be associated.

My thanks are due to Dr. I. McD. G. Stewart for permission to publish this case and to Dr. P. W. Harvey for his advice and encouragement.

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Triamcinolone and Fluocinolone Acetonide Ointments in Atopic Eczema

The excellent antipruritic and antiflammatory effects of hydrocortisone in local applications have been well proved, both by ordinary clinical experience and by the many controlled series comparing and contrasting these preparations with a similar inert base. More recently ointments, creams, and lotions containing 0.1% triamcinolone acetonide have been found to be more effective than those containing hydrocortisone (Smith, Zawisza, and Blank, 1958; Vickers and Tighe, 1960; Polano, 1961).

Therefore it was thought worth while attempting a comparison between the proved effects of 0.1% triamcinolone acetonide ointment and the newer synthetic corticosteroid fluocinolone acetonide ointment 0.025%. This drug is chemically 6α-9α-difluoro-16-hydroxyprednisolone 16,17-acetonide. Encouraging reports on its use have already been reported from the United States, such as that by Robinson (1961), who found that this application was as effective as 0.1% triamcinolone acetonide and superior to 1% hydrocortisone in diseases normally responsive to local steroid treatment.

INVESTIGATION

It was thought that a single type of eczema should be selected for such a trial and that atopic eczema (Besnier's prurigo; asthma-eczema) would be ideal for this purpose. This disease was selected for the following reasons: (1) it is relatively common; (2) it tends to relapse in winter, when this trial was done; (3) the clinical appearances are distinctive and pruritus is intense; and (4) the age-group of the patients was similar, the average age being almost exactly 20.

Each patient was supplied with two 15-g. tubes of ointment labelled "X" or "Y" and instructed to apply the ointment night and morning to the face and neck only, the other affected areas being left as a control on the same treatment as previously. All of those in the trial had been patients treated at the department during recent months. They were asked to report after 14 days' treatment, and the response was assessed as follows: group 1, clear—complete freedom from itching and visual evidence of eczema; group 2, improved—pruritus or skin changes improved but still present; group 3, *in statu quo*—no change in signs or symptoms; group 4, worse—itching or eczema more evident.

RESULTS

At the end of the experiment it was discovered that ointment X was the fluocinolone acetonide and ointment Y the triamcinolone acetonide. Statistically the results (see Table) show no appreciable superiority of one drug

Results in 33 Cases

	Group 1 (Clear)	Group 2 (Improved)	Group 3 (I.S.Q.)	Group 4 (Worse)	Total
Ointment X ..	12	4	0	0	16
" Y ..	10	6	1	0	17

over the other, but it can be said that fluocinolone acetonide is at least as effective as triamcinolone acetonide.

These are expensive drugs to use in a chronic disease which is apt to relapse when treatment is stopped, but they have an excellent effect in controlling the severe itching and in making highly sensitive youngsters more able to face the world with no visible rash. The fluocinolone ointment is less expensive than those containing triamcinolone.

There was no significant improvement on those areas—for example, the arms—on which the previous treatment had been continued.

We thank Sister Bradley and Miss Sheena Stewart for their help, and Dr. J. A. D. Anderson for assessing the statistical significance. Generous supplies of the ointments were supplied by Imperial Chemical Industries ("synalar" ointment), E. R. Squibb Ltd. ("adcortyl-A"), and Lederle ("ledercort").

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