which need be given is less with combined therapy than when the thiazide diuretic is given alone. For clinically useful results to be obtained it would appear that the potassium intake should be of the order of 100 mEq/day. Many oedematous patients have poor appetites and their potassium intake is low. Supplementation of the diet with enteric-coated potassium chloride tablets, 2 g. three times a day, is normally well tolerated and will add 84 mEq to the potassium intake. Where renal failure is present care is essential in the avoidance of potassium intoxication; in these circumstances spironolactone usually fails to produce a diuresis even when given in conjunction with a thiazide diuretic and mersalyl, as shown in Case 4. In all cases the serum potassium concentration should be checked at frequent intervals.

In addition to the above considerations, at the present time the question of cost should preclude the substitution of currently available aldosterone antagonists for potassium supplements as has been suggested (*Brit. med. J.*, 1960).

Summary

The simultaneous administration of an aldosterone antagonist such as spironolactone, and a benzothiadiazine (thiazide) diuretic such as chlorothiazide, reduces, but does not abolish, the potassium diuresis that occurs when this type of diuretic is given alone.

The administration of a potassium supplement greatly increases the sodium diuresis produced by the simultaneous administration of spironolactone and thiazide diuretic.

Potassium supplements should always be given when thiazide diuretics are given either alone or in combination with spironolactone.

FIG. 4.—Influence of varying potassium intake on the renal excretion of sodium and potassium during administration of spironolactone and hydroflumethiazide in Case 3.

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LOCALIZED EPIDERMOLYSIS BULLOSA

BY

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Epidermolysis bullosa is an uncommon skin condition and may be benign or dystrophic. The benign variety appears at birth or shortly afterwards; there is no scarring. It tends to involve areas of trauma—the knees, feet and hands, and mucous membranes may be involved. It is inherited as a Mendelian dominant, and tends to improve with age. In some cases the lesions may be confined to the palms and soles, and this is regarded as a distinct entity by some authorities. The condition was first described by Elliot (1895). It is usually associated with hyperhidrosis, is worse in the summer, and is inherited as a non-sex-linked Mendelian dominant.

The dystrophic variety is characterized by bullous lesions, which may be haemorrhagic, and which heal with scarring, causing atrophy and pigmentary changes. It may prove fatal, but if the child survives puberty the severity may lessen. It is inherited as a Mendelian recessive and is thought by some authorities to be related to ocular pemphigus. Lamb and Halpert (1947) and Bülow and Nørholm-Pedersen (1953) described a rapidly lethal variety which they considered to be distinct from the dystrophic type.

Cockayne (1938) put on record three families with erythema and bullae up to 3 cm. in diameter, confined to the palms and soles. The condition was worse in the summer months. There was no atrophy, no scarring, and no milia production.

Hall-Smith and Daunt (1948) reported the case of a man of 25 who since the age of 9 had had recurrent bullous lesions on the feet in relation to exercise. Several members of his family were affected and inheritance was as a Mendelian dominant. Several similar cases were described in the U.S. Forces during the war, the unusual trauma and the availability of medical services (often for the first time) being important factors (Frank, 1943; Greenberg, 1944; Mooney, 1944). Johnson and Test (1946) described a large pedigree of cases of epidermolysis bullosa localized to the soles and palms, and discussed the inheritance.

Anning (1951) reviewed the literature and added two further families. In these cases treatment with aluminium acetate, potassium permanganate, formalin, and superficial x rays was of little value. Enell, Hesselman, and Söderhjelm (1957) treated six children suffering from dystrophic epidermolysis bullosa with corticosteroids and obtained some temporary improvement in three of the patients.

The present family is reported because of the severity of the lesions, which confine the children to a chair for several weeks each summer, because the family tree clearly shows the method of inheritance, and because of the successful response to treatment with corticosteroids.

Cases in a Family

A girl aged 2½ was first brought to hospital with scabies, the child being carried despite her age. Inquiry showed that bullae had been present on her feet each summer since birth. The severity was such that she could not get out of the upstairs flat for four to five months each summer unless she was carried. Her younger brother, aged 1½, was already affected. Her mother was affected, as were the maternal grandmother, great-grandmother, and great-great-grandmother. The condition was so obviously inherited from the mother's family that the father (who claimed not to have known about it before marriage) was annoyed to the extent of threatening to leave the house and family. There was no other abnormality present, the hair, nails, and teeth all being normal.

The full family tree is shown.

The patient's mother had been badly affected as a child, but now (aged 27) was only occasionally troubled by bullae on the soles of her feet and where the dorsa of her feet were rubbed by shoe straps. The patient's grandmother suffered from hyperhidrosis and blistering of hands and feet all her life (she died of pneumonia aged 59). Even writing a short letter would produce blisters. The two previous generations were also known to have suffered severely until their death (in old age and at 45 respectively). The inheritance is that of a non-sex-linked Mendelian dominant.

The feet of both the patient and her brother showed areas of erythema and tense bullae up to 2 cm. in diameter. Each lesion would last up to a week and would then gradually heal without scar formation. On no occasion did examination show hyperhidrosis, but the mother insisted that they did sweat excessively. Bullae were not seen on any other area of the body.

Sodium hexametaphosphate powder, propantheline, and dapsone were used without effect. Treatment with corticosteroids (triamcinolone 2 mg. b.d.), however, rapidly controlled the blister formation in both the children. After the second day of treatment no new blisters developed, and after seven days the feet had virtually returned to normal. The children were once again able to return to their normal activities. After 15 days' treatment the mother stopped the tablets as the boy had developed diarrhoea (despite the fact that two other members of the household had the same complaint). When seen again, seven days later, several blisters had appeared. Steroids were restarted and the feet improved once more. Ten days later the mother again stopped the tablets because she thought the boy was jaundiced. When seen four days later there were two lesions on each of the boy's feet and one on the girl's right foot. The tablets were restarted, again with successful results, and treatment was continued for a further five weeks, by which time it was the end of September. This was the time of year when in previous years the feet had spontaneously ceased to give trouble. One blister developed at this time on the girl's right foot, but soon cleared.

Summary

A family with severe localized epidermolysis bullosa is described, 14 members of the family being affected. Corticosteroids depressed the formation of bullae. Relapse immediately followed cessation of treatment.

I should like to thank Dr. Netta Hay for permission to study and report this case.

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ADENOCARCINOMA OF CERVIX IN A PRIMIGRAVIDA AGED 18

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Invasive carcinoma of the cervix is seldom found during pregnancy. Chassar Moir (1956) quotes an incidence of "about 1 in 2,000" at the Glasgow Royal Maternity Hospital. However, this incidence may be unusually high, for Browne and Browne (1955) have given a figure of 1 in 4,000 from University College Hospital, London, and Hayden (1956) found 12 cases at the Chicago Lying-in Hospital between 1931 and 1954, an incidence of 1 in 6,817.

Rarer still is the disease in the young primigravida. Kistner *et al.* (1957) had only nine primigravidae among a series of 136 cases, and only two of these were under 20 years of age. In only 22% of 124 cases reported by Sadugor *et al.* (1949) were the patients under 30, and one of these was only 18; she was the youngest case found by us in the literature.

The following report of an 18-years-old primigravida with a cervical adenocarcinoma and an abnormal foetus is of interest because of its extreme rarity and because it emphasizes the importance of making a speculum examination in every case of vaginal bleeding during pregnancy lest the occasional cancer of the cervix is missed and treatment delayed.

Case Report

A primigravida aged 18 years and 3 months first attended the Belfast City Hospital Antenatal Clinic at the twenty-second week of pregnancy. There had been no vaginal bleeding since the last menstrual period, which had begun on October 23, 1958. The only abnormality noted was that the uterus was slightly larger than the period of