The uterus had reached the size of a two months pregnancy. It was fitted into the base of the tubal mass in such a manner as to give, on first examination, the impression of a continuous whole. The stump of the right tube, remaining after the former ectopic operation, and a small right ovary, were attached and free from adhesions. The overgrown tube containing the placenta was detached at the uterine cornu. The only difficulty in completing its removal was the separation of the transverse colon. Omental tissue covered these defects. A large rubber tube was inserted to carry off oozing products, the upper omental cavity being left to drain into the lower area. There was no trouble with bleeding.

CONDITION OF THE INFANT

The child, a female weighing 5 lb. 12 oz., was born alive, and there was little difficulty in establishing breathing. It was a normal pink baby, with hair and nails in keeping with its development. It only survived nine hours; for most of that time it breathed well and was of good colour, but did not cry. In spite of the attention of a capable nurse life could not be maintained.

CONDITION OF THE MOTHER

The patient suffered much nervous reaction following the operation. On the second day she had five epileptiform convulsions. These came on suddenly, as if she had had a smack in the face, and were followed by spasm and convulsion of the whole body. Within fifteen minutes they passed off, and she was quiet and conversing again. They did not recur. She complained of dullness of vision with flashes before her eyes, and at times was forgetful and irrational. The urine was normal, the bowels acted well, there was no distension, and she took nourishment well. Her blood pressure was 144 systolic, reduced to 115 at the end of a fortnight. The temperature did not go above 100° F., though the pulse was 110 to 120 during the first week. There was not much discharge from the wound; the drainage tube was removed on the third day, the stitches on the tenth day, and the wound healed without trouble. There was slight bleeding per vaginam on the third, fourth, and fifth days, followed by a uterine cast on the sixth day. This was complete, and measured about 3 by 2½ inches when spread flat.

Unfortunately, convalescence was interrupted at the end of the third week by a venous thrombosis of the left leg. The patient was, however, discharged at the end of seven weeks from the date of operation. She is now (after twelve months) in good health, and can drive a motor car and engage in the usual activities of life. Her menstrual periods returned at the end of the third month after operation, and have remained normal. There is very little trouble from constipation.

The ninth conference of the International Union against Tuberculosis will meet in Warsaw on September 4th, 5th, and 6th under the patronage of His Excellency the President of the Republic of Poland and under the chairmanship of Professor Pieztrzynski. The discussion will be limited to three main subjects. Biological subject: "Biological Variations of the Tubercle Virus," opening report by Professor Karwacki (Poland). Clinical subject: "Tuberculosis of the Bones and Joints: Treatment, medical and surgical," opening report by Professor Putti (Italy). Social subject: "The Use and Organization of Tuberculosis Dispensaries," opening report by Professor Léon Bernard (France). The organization committee has prepared an attractive programme of receptions and excursions; the latter will enable members of the congress to visit the chief anti-tuberculosis institutions as well as the most picturesque scenery in various parts of Poland. Members of the International Union are invited to take part in the conference without fee. Persons who are not members of the Union and who wish to take part as members of the conference must forward their application, together with a contribution fee of 50 zlotys, exclusively through the medium of the National Association for the Prevention of Tuberculosis, Tavistock House North, Tavistock Square, London, W.C.1. Reductions on hotel prices and railway fares will be granted to members of the congress.

A CUTANEOUS MANIFESTATION OF VITAMIN A DEFICIENCY

BY

G. P. GOODWIN, B.A., M.R.C.S., L.R.C.P.

HOUSE-PHYSICIAN, QUEEN'S HOSPITAL FOR CHILDREN, LONDON

(With Special Plate)

The published records show that vitamin A deficiency is common in other parts of the world at the present time, but until about a year ago the occurrence of this condition in man had only been diagnosed with certainty when eye changes such as night-blindness, xerophthalmia, and keratomalacia had been found.

The case reported below suggests that minor forms of vitamin A deficiency in this country are commoner than supposed, and may at the same time show signs distinct from those already mentioned.

SYMPTOMATOLOGY OF SKIN LESIONS

Writing of cases of vitamin A deficiency seen in China, Pillat[3] describes certain skin lesions. He says that in severe cases of vitamin A deficiency the skin feels dry and becomes scaly; a marked reduction of sweating is noticeable and comedones may form. The nails become dry and brittle. Nicholls,[2] working in Ceylon amongst prisoners living on a diet inadequate in vitamin A and other constituents, also describes the dry skin. Minute, hard, dark-coloured papules appeared in these cases, their distribution being on the legs, abdomen, shoulders, and elbows. On examination, the papules were found to consist of enlarged sebaceous glands plugged with altered sebum. They did not tend to suppurate, but hard, dry, thin scabs formed over and around the papule. A similar papular eruption is described by Loewenthal.[1] It was first observed by him during a quarterly inspection of the Uganda central prisons. The prisoners had been fed on diets low in vitamin A content, and it was found that every sufferer with other signs of vitamin A deficiency—namely, xerophthalmia and night-blindness—showed cutaneous changes in addition. Clinically, the skin was dry, this dryness affecting the whole body with the exception of the face and scalp. A papular itching eruption was present with a limited distribution. It was found chiefly on the extensor aspects of the arms, and on the front and outer surfaces of the thighs. From eighteen patients papules were excised and examined microscopically. The papule arose from a pilosebaceous follicle; the mouth of the follicle was sealed with a plug of horny tissue, among which polymorphonuclear leucocytes and lymphocytes were demonstrated. Eighty-one prisoners were segregated for observation, and of these seventy-one suffered from night-blindness, forty-five with xerophthalmia, and seventy-four with the skin lesion. For these cases no local treatment was given for the skin. The diets remained unchanged except that 1 oz. of cod-liver oil was given daily to each man. After nine weeks' treatment all cases with night-blindness and xerophthalmia were cured, while 98 per cent. of the dermatoses were also cured. From Nyasaland, twenty-three years ago, there came a report of similar skin lesions. Stannus,[4] working amongst cases of pellagra, found that a few patients manifested a skin condition quite distinct from that associated with pellagra. It consisted of a folliculitis with retention of secretion; the enlarged follicles were prickly to the touch, and had a black areola.

Dr. Stannus and Dr. Loewenthal have kindly seen the case described below and have stated that the skin presents the same features as shown in their own cases.

CASE RECORD

History.—T. H., a male aged 10 years, was admitted to the Queen's Hospital for Children on April 16th, 1934. One week previously he had attended the casualty department for sore throat, vomiting, and abdominal pain, for which he had been ordered a milk diet. On the 15th his mother noticed a rash on his body, though it is certain from the

character of the eruption that it had been present for much longer. In answer to a direct question, the mother said that she thought the skin had been dry for several years. The general health of the boy had been good, although he had never been a vigorous type of child. On questioning it was learnt that his diet previous to April 8th had consisted of the following:

Breakfast.—Bread, jam, tea, with skimmed condensed milk; occasionally butter.
Dinner.—Generally fish with potato. The fish consisted of either dried boiled haddock, or of dogfish, the latter bought fried at a fish shop. Sometimes a sausage or the yolk of an egg was given, the yolks totalling three per week or less.
Tea.—Bread and jam; tea.
Supper.—Bread and jam.

His mother stated that the child disliked meat and green vegetables, cow's milk, milk puddings, and white of egg, and that he had not touched meat for years. According to the mother there had been no important previous illnesses and no previous skin eruptions, but the accuracy of these statements cannot be relied upon. There was one other child in the family, who was having a better diet, and who, on examination, manifested no abnormalities. The diet of the patient presents a low content of vitamin A—the breakfast, tea, and supper provided practically none of it, while on certain days of the week the vitamin content of the dinner was also low in vitamin A value.

State on Admission.—The boy was pale, and appeared to be too ill to stand up for any length of time. He was not thin, and was fairly well grown. His height was 4 ft. 6 in., and weight 4 st. 3 lb. He was apathetic, and wanted to lie down, but answered questions intelligently. The temperature was 100.4° F. His skin was dry, except on the face, the dryness being particularly noticeable over the legs and feet. An eruption was present, and consisted of hard, dry papules, one to two millimetres in diameter, many of them red in colour. Thin scales were present over and around each papule, while in the centre of the papule was a pin-point of dry material, looking silvery under a lens, plugging the sebaceous gland around which the papule had formed. The papules were reddish in colour, largest, and most numerous on the extensor surfaces of the lower limbs. Other areas affected were the extensor aspect of the elbows, both shoulder regions, the buttocks and sacral region, and a small patch in the right pre-auricular region. There were numerous horny-feeling comedones on each knee; the nails of hands and feet looked drier than normal; the hair and scalp appeared normal. A small area of moist eczema was present at the left angle of the mouth.

The eyes showed no xerosis, but there was injection of the vessels of the conjunctiva running from the inner and outer canthi of the eye to the cornea. A distinct yellowing of the sclera conjunctiva was also present. Examination for evidence of night-blindness proved negative. There was no hoarseness; the tongue was red and smooth, being denuded of its superficial papillae, while the gums of the upper jaw were swollen, retracted over the carious upper incisors, and presented the appearance of pyorrhoea. The heart, lungs, and alimentary and central nervous systems showed no abnormalities. The stools were normal and there was no abdominal pain or distension. There was no excess of epithelial cells in the urine. A blood count showed little abnormality. Red blood cells, 4,020,000 per c.mm.; haemoglobin, 88 per cent.; colour index, 1.0; white blood cells, 13,700 per c.mm. (polymorphonuclears 80 per cent., lymphocytes 14 per cent., hyalines 4 per cent., basophils 2 per cent.).

Treatment and Course of Illness.—No local treatment was applied to the skin, and the diet given included meat, eggs, fish, green vegetables, milk, and butter. For the first few days in hospital the boy refused meat, but has since taken it readily. Four drachms of cod-liver oil were given daily by mouth, and at the end of a week there was a marked improvement in his general condition. There was slight pyrexia at first, but in four days the temperature reached 98.5° F., and at the end of his first week in hospital the child appeared more vigorous and started voluntarily to sit up in bed. The skin became less dry and scaly, and at the end of a fortnight the papular rash commenced to subside. In about six weeks the skin looked and felt almost normal, although tiny horny plugs could still be seen and felt, plugging the sebaceous glands of the skin; this was particularly noticeable over the legs. When these plugs were extruded a small crater-like orifice, as described by Loewenthal, could sometimes be seen with a lens. Eye pigmentation disappeared, and the injected conjunctival vessels subsided. The gums looked healthier at the end of the third week; the tongue papillae had also regenerated by this time.

At the present time children attending the medical out-patient department at the Queen's Hospital for Children are examined for evidence of similar cutaneous lesions. Already several cases have been found with apparently similar lesions of much slighter grade, and in each of these cases there is a history of a diet which by ordinary clinical standards is inadequate. Each child has been given a preparation of vitamin A, and the results which have so far been obtained are encouraging.

SUMMARY AND CONCLUSION

A case is described in which the diagnosis of vitamin A deficiency is based: (1) on the presence of a dry, harsh "goose-skin," with a papular eruption most marked on the extensor surfaces; this eruption being similar to that described by Loewenthal and his associates and by Nicholls and others; (2) on the history of a diet almost certainly deficient in vitamin A; (3) on the complete disappearance of the cutaneous abnormalities when the boy was given a good mixed diet with the addition of cod-liver oil.

I would like to thank Dr. Helen Mackay for her kindness in allowing me to publish this case, and for her helpful criticisms.

Note by Helen M. M. Mackay, M.D., F.R.C.P.

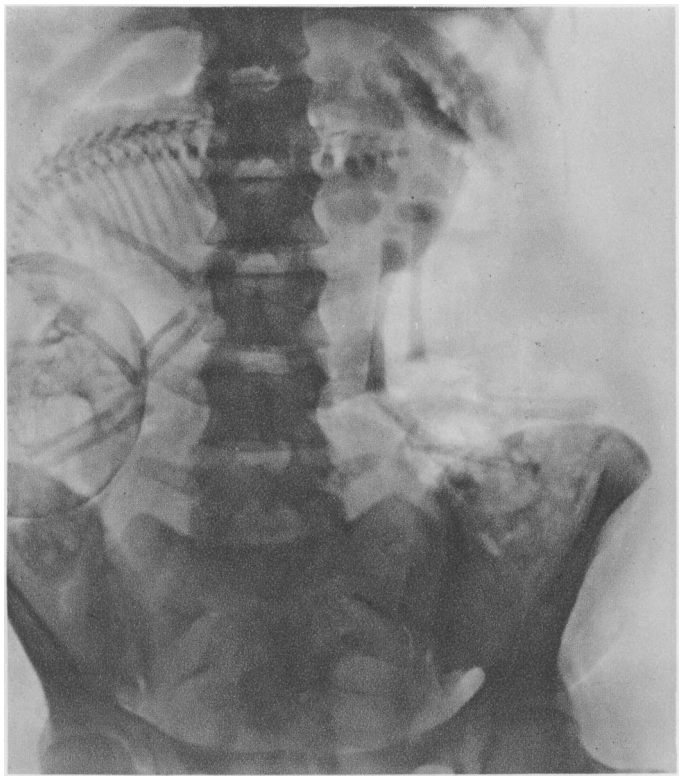
In a recent article in the *Archives of Disease in Childhood* I have suggested that the eye symptoms of vitamin A deficiency are not necessarily the earliest symptoms of this condition. Since writing that article I have had the privilege of discussing the question with Dr. L. J. A. Loewenthal and Dr. W. H. Kauntze, both of the Uganda Medical Service, and have read the valuable article by Dr. L. Nicholls, who is working in Ceylon. From their observations it is, I think, established that it is often possible to diagnose vitamin A deficiency from the cutaneous changes alone. That the skin changes which they describe are due to vitamin A deficiency seems certain. Keratinization of epithelial tissues is generally regarded as the characteristic pathological change resulting from vitamin A deficiency, so that the skin lesions they describe fit perfectly into the picture. Moreover, the administration of cod-liver oil alone, or, in two cases, of a concentrate of vitamin A alone, regularly brought about cure of the skin changes in Dr. Loewenthal's cases. The case here described by Dr. Goodwin is without doubt of the same type. Since seeing this child we have been on the look out for other such cases in the out-patient department of the Queen's Hospital for Children, and have already found several children with a slight grade of an apparently similar condition of the skin. In each of these patients there is a history of a poor and ill-balanced diet. If by the therapeutic test of giving vitamin A a number of such cases can be shown to be due to a deficiency of this vitamin, it will be established that this deficiency is far from rare in this country.

REFERENCES

[1] Loewenthal, L. J. A.: *Arch. Derm. and Syph.*, 1933, xxviii, 700.
[2] Nicholls, L.: *Indian Med. Gaz.*, 1933, lxviii, No. 12, 681.
[3] Pillat, A.: *China Med. Journ.*, Shanghai, 1929, xliii, 907.
[4] Stannus, H. S.: *Trans. Soc. Trop. Med. and Hyg.*, 1912, v, No. 3, 112.

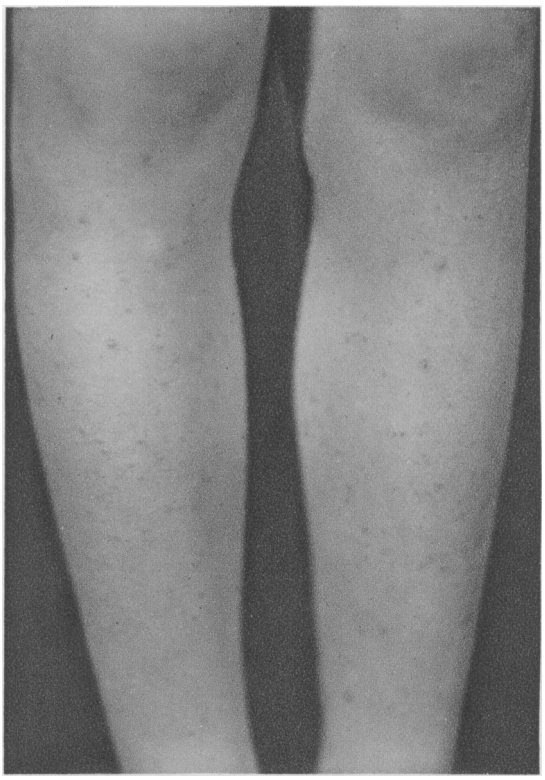
The vacancy caused by the death of Dr. H. Watson Smith, medical director of the Lebanon Hospital for Mental Diseases, at Beirut, in Syria, has now been filled. The London General Committee of the hospital has secured the services of Dr. R. Stewart Miller, late medical director of the Khanka Mental Hospital, near Cairo, who retired from that post a year ago under the agreement whereby Egyptians replaced British civil servants. Dr. Miller brings to his new work great experience of mental diseases and administration, as well as the knowledge of Arabic and French which is so necessary in Syria.

ARCHER HOSKING: CAESAREAN SECTION.
DELIVERY OF 254-DAY EXTRAUTERINE FOETUS



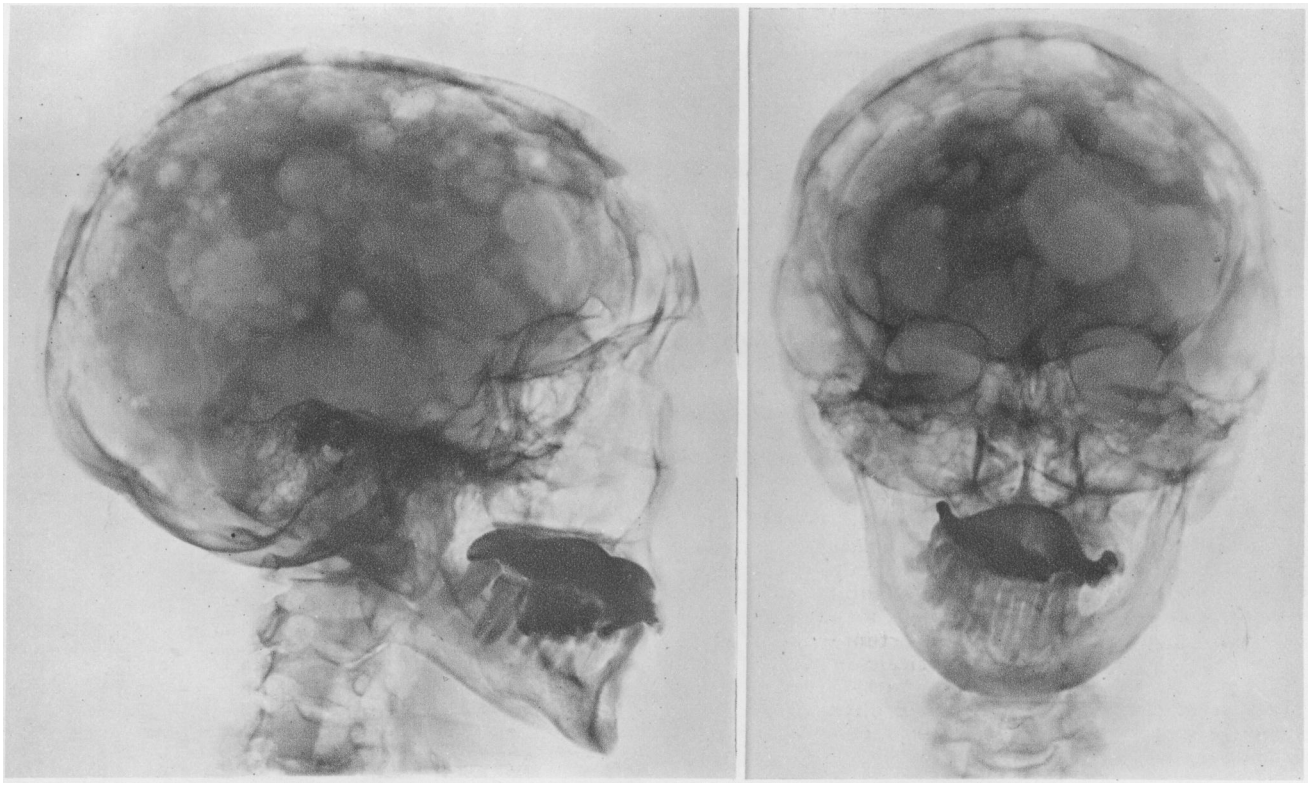
Extrauterine foetus: 250th day.

G. P. GOODWIN: CUTANEOUS MANIFESTATION
OF VITAMIN A DEFICIENCY



Front view of patient's legs.

C. L. SPACKMAN: LATE RECURRENCE OF CARCINOMA



Lateral and antero-posterior views of skull, showing areas of rarefaction.