CASE XIV.

This lady, aged 37, was sent to me by a well-known surgeon who had operated for carcinoma of the left breast about two years previously. Closely following upon the shock of the death of a near relative from cancer, recurrence made its appearance on the side of the chest and in the supraclavicular region, while a vague induration appeared in the axilla. Radium treatment was applied in Paris, without much benefit. About the end of April, 1909, swelling of the arm became very marked, and pain and discomfort from this cause began. Radium treatment was recommended by Dr. Louis Wickham for this condition, but the patient herself felt that the applications aggravated the swelling. Radium treatment was continued in England after the patient's return. She continued, in spite of her sufferings, to lead an active life, and although her condition would have confined most women to bed, she frequently spent a whole day in the hunting field, carrying the swollen arm on the saddle in front of her. Her determination to fight and conquer the disease was truly heroic. She had noticed that confinement to the house seemed to quicken the march of the disease—a fact she had observed during an attack of mumps early in 1909—and had lived an active open-air life in consequence. I first saw her on August 28th, 1909. She had then an indolent, ulcerated, or rather eczematous, cancerous area over the front and side of the left chest, one or two very large glands in the supraclavicular region, and a vague induration in the armpit. There was also some impairment of resonance at the base of the left lung. She had had attacks of shortness of breath. The arm was hard, cyanotic, and very swollen, the swelling extending up to and involving the shoulder, but not at that time covering the scapular region.

I pointed out that the case was not a favourable one for my operation, in view of the activity of the disease and the doubt as to the condition of the pleura. The patient and her husband were, however, most anxious for the performance of lymphangioplasty, even if the relief would last "only three days." The case seemed to be one where the wishes of the patient could be allowed the deciding voice, and on August 29th I operated by the usual method.

The immediate result was most striking and satisfactory. The pain ceased from August 30th, and the hand and forearm rapidly subsided and regained their normal colour, while the tension of the upper arm was much diminished, and it became comparatively flabby. Movement also returned to the fingers, wrist, and elbow. The stitches were removed on September 6th, when all the incisions were soundly healed. The only incident in a smooth convalescence was an alarming attack of dyspnoea, necessitating the use of oxygen, which occurred about the fifth day. The patient went down to dinner on September 6th, and at this time her only trouble was sleeplessness. On September 9th she motored 60 miles into the country, and though rather exhausted everything seemed going well. From this time, however, the swelling in the arm rapidly recurred. On September 18th I found on examination much fluid in the pleural cavity, and drew off a quart of straw-coloured effusion. The cancerous area in front of and at the side of the thorax had rapidly extended and was involving the scapular region, to which the threads had been led, blocking up the new lymphatic drainage system. On September 25th the arm was as bad as before the operation, and there was oedema over the whole front of the chest and the left supraclavicular region. The patient's mental attitude had changed from one of eager fight to one of serene resignation. From this time morphine was administered regularly, and the patient died in December, 1909.

It may be said that in this case the operation was unjustifiable. This opinion would ignore the patient's imperative wish to have it tried and the subsequent period of ease, which, though measured by days, must have been an unspeakable relief after months of torment. The respite could have been obtained by no other method with which I am acquainted. The surgeon who removed the growth went to see the patient some days after the operation, and expressed himself satisfied that the operation had justified itself.

CASE XV.

A. T., aged 54, was admitted into the cancer wards of the Middlesex Hospital on September 25th, 1909. In 1899 a nodule was excised from the right breast. In 1902 the breast was removed for local recurrence. In 1904 five nodules appeared near the scar, and ulceration supervened later, but healed under *x* rays in 1908, only to break out again later. Growth and ulceration appeared in the axilla, but pain remained absent until the development of a dropsical right arm about June, 1909.

On admission in September, 1909, she was very ill and cachectic, with extensive nodular growth, in places ulcerated, over the sternum and right chest wall. The axilla was a deeply ulcerated chasm with a floor of offensive sloughy growth. On December 2nd, at the patient's earnest wish, I consented to do lymphangioplasty if the ulcers could be got into a cleaner condition. For this purpose the axillary cavity was filled with acetone for half an hour daily. The application was painful, and on December 18th a severe hæmorrhage of about a pint occurred from the axillary cavity, with slight temporary benefit to the swelling of the arm. On January 8th, 1910, the general condition showing some improvement, lymphangioplasty was performed in the usual manner.

The operation caused me a considerable amount of anxiety, for the axillary ulcer, spreading from the front, had left only a bridge of normal skin about 6 in. wide posteriorly, and

through this narrow strait the silk threads had to be led. The risk of failure had been fully explained to the patient, and she desired to submit to it rather than remain in her condition of pain and misery. Fortunately, no failure of asepsis occurred, a fact which reflects great credit on the house-surgeon, Dr. A. O. English, and on the nursing staff, and her convalescence was without incident. Although the contraction of the axillary tissues allowed of no abduction and only the slightest elevation, it was noted on January 14th that the hand and forearm had much improved, and the skin of the hand showed marked creasing. The arm had not much diminished in size. On January 19th the registrar notes "There is very great improvement in the condition of the arm. Swelling in the hand and arm has diminished wonderfully." Before the operation the hand and arm and even the fingers were quite paralysed, while the patient can now move both the wrist and elbow, and can grasp firmly with the hand. The patient especially drew my attention to the increased vertical mobility of her shoulder, and to the diminution of swelling behind the shoulder-joint.

On January 23rd, in a letter written to me with the hand which had been completely paralysed, she expressed herself delighted with the results of the operation, especially in regard to the relief of pain. In order if possible to check the advance of the disease in the direction of the threads, a course of *x* rays is being applied to the region of the scapula.

The measurements of the arm are as follows:

	Right Arm.		Normal Left Arm.
	December 2nd, 1909.	January 19th, 1910.	
Palm of hand	in. 8½	in. 7	in. 7
Wrist	7½	6½	6½
Forearm 4 in. below elbow	11½	8½	7½
Arm 4 in. above elbow	12½	11½	9
Arm 8 in. above elbow	12½	11½	10½

Remarks

ON A

CASE OF RECURRING JAUNDICE IN FOUR SUCCESSIVE PREGNANCIES, WITH FATAL JAUNDICE IN THREE SUCCESSIVE INFANTS.

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A WOMAN who had never had jaundice at any other time had jaundice in her four successive pregnancies, and her first three infants died of jaundice. In the fourth pregnancy the woman was treated with urotropin and sodium salicylate, and, though she became somewhat jaundiced about the sixth month, she had a healthy child.

A married woman, aged 35, two months pregnant, came to St. George's Hospital on December 8th, 1908, in order to see if anything could be done to prevent the sequence of events which had characterized her three previous pregnancies. In each of these pregnancies she had become jaundiced about the sixth month, and subsequently suffered from itching of the skin. Throughout all her pregnancies she has had nausea, but has never had vomiting. She is always constipated, and this is much worse during her pregnancies. Her three children were all born six weeks before term, and, though not jaundiced at birth, rapidly became so, and died; the first, a boy, died at 5 months; the second, also a boy, at 5 months; and the third, a girl, at 16 days. She has not been able to suckle any of her children. She has never had jaundice or pruritus except during these pregnancies; she has not had biliary colic or enteric fever; and, as far as she knows, jaundice has not occurred among her own relations or in her husband's family.

During her fourth pregnancy she was treated with urotropin and salicylate of sodium, with a view of preventing infection and obstruction of the biliary tract, and the occurrence of grave jaundice in her infant. This, however, was not entirely successful, for she became jaundiced about the sixth month, and had pruritus, though she did not feel so uncomfortable as in her previous pregnancies. There was no enlargement of the liver or spleen. On June 3rd, 1909, a healthy 8 months boy was born. He did not show any sign of jaundice; when 2½ weeks old he was admitted into the hospital. There was nothing really the matter with him; the liver, spleen, and urine were healthy. He was seen again on March 1st and 10th, 1910, when he weighed 16 lb., and was in very good health. He has never had any jaundice.

In a number of recorded examples successive infants of healthy parents have become jaundiced and died shortly after birth. Arkwright reported a family of 15 children, 14 of whom had jaundice, with 4 survivals; the mother had had jaundice when 4 years of age, and had a "rather sallow, earthy complexion." Busfield described 9 cases in one family (one necropsy, no changes in liver or ducts). Auden recorded 8 cases of jaundice out of 12 pregnancies in one family; in 4 of his cases a necropsy was made, and failed to show any lesion in the liver or bile ducts. Blomfield reports 5 cases, and Pfannensteil 3 cases in one family.

In this condition the infants are not born jaundiced, and there is not any evidence of syphilis either in the parents or in the infants. It is familial and not hereditary. The only instance, apart from my case, in which the mother had had jaundice was in the family reported by Arkwright. It is noticeable that this condition has been recorded in families characterized by a large number of pregnancies some of which have aborted, miscarried, or terminated before full time or in stillbirth. In Arkwright's series there were 15 pregnancies, in Auden's 12, in Busfield's 10. In Auden's and Busfield's series the first child escaped, and may have done so in Arkwright's, and was very slightly affected in Blomfield's series. The later children seem to suffer rather more severely than the earlier. Both sexes are affected.

The cause of the jaundice is obscure. Pfannensteil, who calls the condition "habitual icterus gravis of the newborn," regards it as an intensified form of the physiological jaundice of newborn infants, and not as a grave infective icterus. As there is no evidence of any structural change in the liver and bile ducts, it is tempting to assume that it is toxic, and is due to some form of maternal toxæmia or infection. In this connexion Blomfield points out that in his series the mother suffered much from vomiting during her pregnancies. The occurrence of abortions, miscarriages, premature and still births in some of the series also fits in with this hypothesis. Against the view that it is due to maternal toxæmia or infection it might be argued (1) that the offspring do not, as a rule, become jaundiced until a day or so after birth, and (2) that the infants suffer far more than the mothers. In reply it may be urged, by way of analogy, that hereditary syphilis may not produce any obvious change until after birth, and that it may, and often does, affect the infant's health much more than the mother's. It has been suggested that the jaundice might be due to toxins contained in the mother's milk; but this is improbable, as the jaundice often appears on the second day of independent existence, and in some cases, as in my own, the infants have not had their mother's milk.

Recurring jaundice during pregnancy has been recorded by Benedict in two sisters; these patients had repeated attacks of jaundice and severe pruritus with hepatic enlargement during pregnancies; these symptoms disappeared after abortion or premature delivery. Their infants were not jaundiced. The condition in my patient was similar except that she did not show any hepatic enlargement, and that her first three infants were jaundiced. It is difficult to avoid the conclusion that this recurring jaundice during pregnancy is toxic.

In the family reported here there is the remarkable, and, as far as I know, unrecorded, association of the recurring jaundice of pregnancy in the mother with fatal jaundice in the offspring. It may, perhaps, be suggested that this association of recurring jaundice during pregnancy in the mother and of grave jaundice in her newly-born infants is the complete form of a disease of which Arkwright's, Auden's, Busfield's, Blomfield's, and Pfannensteil's series on the one hand, and Benedict's cases on the other hand, are incomplete forms.

The most reasonable method of treatment appears to be to treat the mother during her pregnancy with biliary and intestinal antiseptics such as urotropin, salicylate of sodium, small doses ($\frac{1}{2}$ grain) of calomel, tetrachloride of naphthalene, guaiacol; to regulate her diet, and to prevent constipation. The infant's jaundice should be treated on the same lines, and if there are urgent symptoms, by subcutaneous transfusion of saline solution. In view of the probability that the infantile jaundice is due to maternal toxæmia it is probably wise to adopt Auden's suggestion of preventing the mother from suckling the infant. In my

case it would not be justifiable to insist that the administration of urotropin and salicylate to the mother during her pregnancy was responsible for the escape of the infant, as she herself had some jaundice.

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PIGMENTATION OF THE BUCCAL MUCOSA IN PERNICIOUS ANAEMIA.

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PIGMENTATION of the mucous membrane of the mouth in pernicious anaemia is apparently a very rare condition, and as such pigmentation has until lately been regarded as almost pathognomonic of Addison's disease, it is important to place on record all cases of pernicious anaemia in which it is found. The following case presented the phenomenon in a very well marked form.

The patient, a man aged 28, was admitted to hospital under my care on January 3rd, 1910, complaining of weakness and palpitation. He was employed as a groom, but was for eight years in the army, and during that time suffered, in the summer of 1908, from an attack of moderately severe malaria, for which he was treated at first by quinine, and later for a period of one week by an arsenical mixture. He left the army at the end of 1908, and remained in good health until the commencement of his present illness, three months ago.

On admission he presented the typical appearance of pernicious anaemia, but in addition to the uniform lemon-yellow colour of the body there were present a few scattered freckle-like patches of deep brown pigmentation on the face below the eyes and around the angles of the mouth. The most striking feature, however, was the pigmentation of the lips and mucous membrane of the inner aspects of the cheeks. The lower lip on its inner aspect was of a bluish, inky colour, and this discoloration was prolonged in the inner aspect of the mouth on both sides, principally on a level with the line of junction of the teeth, in the form of scattered inky patches. Similar patches less deep in colour were also present on the inner aspect of the right cheek below the level of the teeth. The teeth, especially those in the upper jaw, were extremely foul, with pus exuding from some of the sockets. The first blood examination showed a diminution in number of the red cells down to 480,000 per c.mm., with a colour index of 1.5; there was extreme variation in the size of the red cells, with poikilocytosis, but nucleated cells were scarce, only two, both of megaloblastic type, being found in a count of 500 white cells. The white cells numbered 5,000 per c.mm.; blood pressure 115 mm. Hg; no HCl in gastric contents; hæmic murmurs present; spleen just palpable; von Pirquet's tuberculin test negative.

Under treatment by arsenic the red cells have increased to 1,750,000 per c.mm., with a colour index of 1.4. The mouth pigmentation is, if anything, less marked than before, doubtless owing to the fact that the contrast between it and the remaining mucous membrane is now less sharp owing to the gradual return of the latter to its normal colour.

In addition to this case only four others seem to have been recorded, and that in spite of the careful examination to which the mouth is usually subjected in this disease. Hale White¹ was the first to call attention to the symptom at the Association of Physicians in May, 1907. His case was that of a man, aged 22, who was admitted to Guy's Hospital suffering from increasing weakness, and who on examination was found to present an abnormal pigmentation of the face, trunk, and limbs, partly in the form of small, dark brown, freckle-like spots, and partly in more diffuse brown areas. The diagnosis of Addison's disease was at first suggested, and the presence of well-marked pigmented streaks and spots on the inner aspects of the cheeks seemed to confirm this, but, relying on the other features of the case, Hale White inclined to the diagnosis of pernicious anaemia, and this was confirmed at the *post-mortem* examination. The second case is recorded in the *Guy's Hospital Reports* for 1909 by Herbert French.² It is that of a woman, aged 33, who showed the typical symptoms of pernicious anaemia. In this case there was widespread pigmentation of the skin in patches and specks, pigmentation of the buccal mucosa on the inside of the cheeks, and purulent tooth sockets. Here also the diagnosis was later confirmed *post-mortem*. In both of these cases, and also in mine, the use of arsenic