Picquet says that in nearly all the cases collected by Cernezz rotation had occurred between two fixed points, the upper being where the twisted mass became continuous with the omentum, and the lower where the omentum had become attached by old adhesions.

The lower attachment was usually near the hernial sac. In the 60 cases associated with hernia of which I have details, the twisted mass of omentum was fixed below in 52—in 48 it was actually in the hernial sac or attached to its neck, in 3 the adhesion was to bowel, and in 1 to the Fallopian tube.

Old adhesions were absent in only 8 of the cases. In my case the mass was not connected in any way with the hernia, nor were there any old adhesions.

It appeared from the examination of the specimen removed that an omental tumour had been produced by the matting and chronic thickening of that part which had from time to time descended into the sac.

The normal omentum above such a tumour would constitute a long and thin pedicle, and thus the conditions favourable to rotation of the tumour would be produced. In only a small proportion of the cases has the rotation been attributed to any particular exciting cause: repeated attempts to reduce the hernia have been considered responsible in a few cases, and violent efforts in some others.

In my case the patient's fall, three days before the onset of abdominal pain, appears to have been the immediate cause of the rotation of the tumour.

The diagnosis in cases of torsion of the omentum is extremely difficult, and has, I believe, been made correctly on one occasion only. The reasons for the difficulty are that the condition is extremely rare, and the signs and symptoms very closely resemble those produced by other conditions.

The only treatment is by operation: it may be possible in certain cases to spread out the twisted omentum, but in the great majority this cannot be done, and consequently it is necessary to remove the part below the point of rotation.

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A CASE OF ANTENATAL PNEUMONIA.

BY

ALEX. T. I. MACDONALD, M.B.,

CH.B.GLASG.,

LATE HOUSE-SURGEON, GLASGOW MATERNITY AND WOMEN'S HOSPITAL.

THE following case, which by the courtesy of Dr. J. M. Munro Kerr I am allowed to report, presents several features of unusual interest from the point of view of the effect of the disease in the product of conception.

Mrs. S., aged 29, pregnant for the fifth time and apparently at term, was admitted to hospital on the evening of September 17th, 1910, suffering from acute lobar pneumonia in its early stages.

The pregnancy had run a normal course until three days before admission, when the patient felt feverish and complained of sore throat and of general malaise. Her husband noticed at the time that her voice was husky. Early next morning she shivered and had severe stabbing pain below the left breast and over the left base, her breathing becoming rapid, and painful on deep inspiration. There was some sickness during the day. She was seen in the evening by her medical attendant, who diagnosed lobar pneumonia. As she was at term and could not be nursed satisfactorily at home he ordered her removal to hospital.

On admission the face was flushed, the respirations rapid and painful (44 per minute), pulse 124. The tongue was red and dry on the dorsum, and covered at the edges with a thick yellowish-white fur. The bowels were constipated. She had a short, painful cough, accompanied by scanty, tenacious spit, rusty at first, later more bloody. On microscopic examination Fraenkel's *Diplococcus pneumoniae* was found in large numbers, in clusters and in fairly long chains. Some were intracellular in the polymorphonuclear leucocytes. The physical signs were those of an early pneumonia, involving the lower lobe of the left lung. Movement of that side was restricted. Vocal resonance and fremitus were slightly increased. The percussion note had a tympanitic quality over the left lung, in front and behind, and fine crepitations were heard over the lower lobe. The right lung was the seat of some bronchitis. The second sound of the heart was softer and less

sharply defined than normally. The urine was of a deep amber colour, specific gravity 1025, and was acid in reaction. It contained a trace of albumen, and chlorides were diminished.

Later tubular breathing was heard over the lower axillary region, and finally the whole of the lower lobe of the left lung became consolidated, tubularity being extremely well marked. Four days after admission there was lancinating pain over the right lung at its base, and a consolidated patch was found to be present at the extreme base, but there was no further extension.

The degree of pyrexia was moderate throughout, the temperature reaching 103° on the fifth day of the disease, and falling to 98.6° by the following morning. Coincidentally with the extension at the right base it rose to 100.6°, and remained approximately at that level until the twelfth day, when it again reached normal. The patient was free from pain on the ninth day, and the sputum by this time was mucopurulent in character. Subsequent progress was satisfactory.

Labour came on spontaneously on September 19th, that is, two days after admission, and, after a short second stage, the patient was delivered naturally at 10.30 p.m. of a living female child, whose length was 19 inches and weight 6 lb. There was considerable physical embarrassment during the labour, and the patient was freely stimulated and oxygen was administered at intervals.

The child was feeble, but cried soon after birth. It was slightly cyanosed during the night, but this improved in the course of the following morning. Later the breathing became laboured, and increasing cyanosis was noticeable. There were only one or two attempts at coughing. Respiration quickly became sighing, and mucus accumulated in the larynx; death occurred twenty-eight hours after delivery.

A post-mortem examination was performed by Dr. A. M. Kennedy, pathologist to the hospital. The right lung generally was more bulky than the left, and the upper and lower lobes and the posterior half of the middle lobe was consolidated from pneumonia in the stage of red hepatization; the anterior portion of the middle lobe merely showed engorgement. In the left lung marked congestion of the lower lobe was present, while the upper lobe showed numerous minute heads of interstitial emphysema, and one larger bulla at the anterior margin under the pleura. The heart was of normal appearance. The pericardium contained an excess of blood-tinged fluid and a small quantity was also present in the abdominal cavity. The liver and kidneys showed marked venous congestion. The spleen was slightly enlarged, and somewhat soft and diffident. Films from the lung were stained, and in them large numbers of pneumococci were present, similar in morphological characters to those in the mother's sputum.

From the advanced inflammatory changes present in the fetal lungs so soon after birth it is probable that the pneumonic condition originated *in utero*.

Had the pneumonia arisen from insufflation of liquor amnii or vaginal discharge during delivery, it would have had a lobular rather than a lobar distribution. Here there was certainly no insufflation of morbid material, rupture of the membranes preceding the birth of the child by twenty minutes only.

As is well known, pneumonia is sometimes associated with lesions in other parts of the body, pointing to the existence of a blood infection at some stage of the disease. In this case the diplococcus, present in the maternal blood, was apparently transmitted to the fetus through the placenta. The presence of the organism has been demonstrated in such cases in the uterine sinuses, as well as in the fetal portion of the placenta, and passage has been observed in animals (Foa and Bordoni-Uffreduzzi). To allow of transmission of the organism it is probable that some lesion of the placenta must be present, or that the placenta must be damaged by the toxic action of the maternal blood.

Ballantyne¹ says that the fetal lungs are not frequently affected in pneumococcic infections. When they are, lesions of other parts are commonly found—for example, of the pleura, pericardium, or peritoneum. The organism has been demonstrated in the exudates found in these cavities, as well as in the blood, and in the liver and spleen (Carbonelli, Netter, and others). Indeed, the powers of resistance in the fetus seem comparable to those of certain moderately susceptible animals, in which a septicæmic condition is the chief result of experimental inoculation, localized lesions being less common sequelæ.²

When the organism does settle down in the fetal lung, however, it is likely to find a suitable nidus, bearing in mind the defective blood supply before the establishment of respiration. The lung then receives but a scanty supply of blood from the pulmonary artery, most of the blood passing into the aorta by the ductus arteriosus without entering the lungs. The blood which does reach the lungs is somewhat impure, consisting mostly of the return flow from the head. Moreover, the function of the lungs is in abeyance, and in common with other tissues

whose function is not being exercised we might expect them to succumb readily to the attacks of micro-organisms. Phagocytosis under such conditions is likely to be at a minimum.

In some cases of pneumococcal infection of the fetus the mother has apparently suffered from no infectious disease. Don³ recently reported a case of antenatal lobar pneumonia in which there was no apparent antecedent infective condition in the mother. Except for feelings of chilliness four days or so before delivery, she felt perfectly well. Cases such as this show clearly that the placenta does not always act as a filter in preventing pathogenic organisms from reaching the fetus.

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² Muir and Ritchie's *Manual of Bacteriology*, 3rd edition, p. 197.
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A CASE OF HAEMOCHROMATOSIS, OR PIGMENTARY CIRRHOSIS OF THE LIVER WITH GLYCOSURIA.

By MONA DEW ROBERTS, M.B., B.S. LOND.,

ASSISTANT MEDICAL OFFICER, ST. PANCRA'S SOUTH INFIRMARY; LATE
 JUNIOR OBSTETRIC ASSISTANT, ROYAL FREE HOSPITAL;
 CLINICAL ASSISTANT TO THE ROYAL FREE HOSPITAL
 AND THE EVELINA HOSPITAL FOR CHILDREN.

HAEMOCHROMATOSIS, or bronzed diabetes, is a rare and interesting disease which was first described by Hanot in the year 1882. According to Fletcher, the three cardinal symptoms are:

1. Pigmentation of the viscera and of the skin.
2. Cirrhosis of the liver, almost invariably hypertrophic in type, and accompanied by striking pigmentation of that organ.
3. Diabetes mellitus, which develops at the final stage of the disease, and is due to a late pigmentary cirrhosis of the pancreas hindering the glycolytic function of that organ.

The pigmentation resembles that of Addison's disease, and two kinds of pigment have been described—haemosiderin, which contains iron and is found in the liver, glands, and skin; and haemofuscin, which does not contain iron, and is present in some of the other organs.

The cause of the haemochromatosis is a disputed point. According to some observers the diabetes is primary, the destruction of red blood corpuscles leading to the formation of pigment in the skin and viscera. The majority, however, consider the cirrhosis to be primary, and that the diabetes arises at a very late stage of the disease from extension of the cirrhosis to the pancreas, causing destruction of the islands of Langerhans.

The following case is a good example of the disease:

A widow, E. P., aged 69, was admitted to St. Pancras South Infirmary on November 28th, 1910, complaining of increasing weakness.

History of Present Illness.—Four years ago she began to suffer from thirst, and for the last three years had had incontinence of urine. Previous to the onset of this illness she had been a stout, well built woman weighing about 14 st.; but during the past year she had steadily lost flesh, and for the last three months had wasted rapidly. Always a good eater, she was now noticed to eat ravenously whatever food was put before her, and for the three months previous to admission she had lost control over the sphincter ani. She became increasingly feeble, and two weeks ago was forced to go to bed.

Previous History.—She was born and had always lived in London. Her circumstances were good, and she was always partial to rich food. She habitually took beer and spirits, and was more than a moderate drinker, but her relatives had never known her get intoxicated. There was no history of a shock or of worry. Two or three years ago she fell on to the back of her head whilst alighting from a tram, but beyond a localized swelling over the occiput nothing further developed.

Previous Illnesses.—When a child she had scarlet fever and measles, twenty years ago she had an attack of erysipelas, and three years ago she was laid up with influenza.

Family History.—There was no history of diabetes or consumption in the family. Her mother died of cancer of the uterus, her father of old age.

Condition on Admission.—The patient was emaciated and feeble, and appeared to be seriously ill. What struck me most was the curious pigmentation of her face, which was of a leaden hue, except for a flush over the malar prominences and in the centre of the forehead; the pigmentation was deeper over the temples. The skin as a whole was more dusky than normal, and the front of her neck, her forearms and the dorsal aspects

of her hands were bronzed in colour, whilst the upper half of the anterior aspects of both thighs were a dull grey hue. The skin was very dry and scaly. Above the left nipple two irregular-shaped hard tumours were present, each the size of a small plum, freely movable and not adherent to the skin or underlying structures, but connected with each other by a strand of tissue, so that traction upon the one produced movement of the other. The axillary glands were not enlarged. The cardiac dullness was not increased, the heart sounds were clear, and no bruits were present. The lungs were resonant and the air entry good. The liver dullness began at the level of the fourth rib and extended downwards in the nipple line as far as four fingerbreadths below the costal margin, where the sharp edge of the liver could be distinctly felt. On palpation the surface of the liver appeared to be smooth, firm, and not painful. The spleen could not be felt. There was no evidence of any ascites. The feet and legs were markedly oedematous. Superficial ulcerative vulvitis was present and the glands in the left groin were enlarged. The urine was clear, amber coloured; specific gravity 1030, acid in reaction; sugar was present.

Further History of the Case.

Throughout the patient's temperature remained subnormal and incontinence of urine and faeces persisted. She slept well, took her food with relish, and complained of nothing but of feeling weak.

The amount of sugar per diem averaged 26 to 30 grains to the ounce. She daily grew weaker, and on December 19th vomited a small quantity of thick fluid. The following day she suddenly became comatose, was infused with 3 pints of sodium bicarbonate (1 drachm to the pint of 0.7 saline), but never regained consciousness, and died a few hours later. On the day of her death the urine contained 30 grains of sugar to the ounce.

Post-mortem Examination.—The body showed marked wasting. There was practically no fat in the subcutaneous tissue covering the chest. The naked-eye appearance of the cut section of the breast tumour was that of a fibro-adenoma with calcareous degeneration in places. The heart weighed 8 oz.; the pericardium and epicardium were adherent near the apex; the myocardium was pale and soft; the valves appeared normal. The lungs: The surface was everywhere smooth and shining, and no adhesions were present. The right lower lobe was congested posteriorly. The peritoneal cavity contained 2½ pints of turbid greenish fluid with no flakes of lymph; the peritoneum was congested, showing dilatation of the vessels; its surface was smooth and glistening. The liver weighed 109 oz. There was no perihepatitis; the surface was nodular, becoming finely granular towards the lower margin. In colour the liver was a rich chocolate brown, shading into a deep slate blue on the anterior and posterior surfaces of the left lobe near the lower edge. Situated on the anterior aspect of the left lobe was a small superficial abscess the size of a cherry, containing caseous matter. The hepatic tissue was much harder and tougher than normal. The gall bladder was dilated, and contained clear, straw-coloured fluid with six minute black stones, each roughly the size of a pin's head. The mucous membrane was dark red, roughened, and granular in appearance. The spleen weighed 10 oz.; the capsule was thickened and slate coloured. The kidneys weighed 5½ oz. and 4½ oz. respectively; the capsule stripped easily, leaving a smooth surface; the parenchyma was tougher than normal. The pancreas was very adherent to surrounding structures, and showed nothing abnormal to the naked eye.

I am indebted to Miss Chambers, M.D., Pathologist to the Royal Free Hospital, for the following histological report:

The liver is in a condition of finely granular cirrhosis. The capsule is thickened, and sends prolongations down into the deeper tissue. There is an extensive deposition of pigment in all the liver cells, most markedly in the cells of the outer zones of the lobules. The bile ducts are not increased in number, or dilated or inflamed. The pancreas shows chronic interstitial pancreatitis, the lobules are separated by thick strands of fibrous tissue. The cells of the pancreas appear to have proliferated, many are degenerate, and contain fat and pigment granules. The smaller pancreatic ducts show no inflammatory changes. The spleen is in a condition of chronic fibrosis. The trabeculae are thickened, and pigment can be found in a few places.

Apart from the rarity of the disease, the chief interest of the case lies in the fact that the patient was a woman, for, in an article by Professor Osler on Haemochromatosis in the BRITISH MEDICAL JOURNAL for December, 1899, it is stated that no case had been reported to have occurred in a female. The weight of the liver is also remarkable.

In conclusion, I would here wish to thank Dr. Thackray, the Medical Superintendent, for his courteous permission to record this case.

THE order of the London County Council adding acute poliomyelitis or polioencephalitis to the list of notifiable diseases in the administrative county of London, which came into operation on September 1st, will continue in force until March 12th, 1912, and may be renewed.

THE Medical Directory of New York, New Jersey, and Connecticut, for 1911, just issued by the Medical Society of the State of New York, contains the names of 17,624 registered physicians, as against 17,416 in 1910.