ILLUSTRATIONS OF EXCEPTIONAL SYMPTOMS AND EXAMPLES OF RARE FORMS OF DISEASE.

By JONATHAN HUTCHINSON, F.R.S., LL.D.,
Emeritus Professor of Surgery at the London Hospital.

[Continued from Page 1097.]

IX.—RECURRING ATTACKS OF CHILLINESS FOLLOWED BY SLIGHT ERYSIPELAS OF FACE: XANTHELASMA OF EYELIDS.

Mrs. B.'s account of her symptoms was very interesting. She said that she had, for three years, been liable to periods of chilliness, during which she could not keep warm. Nothing warmed her; neither exercise nor fire-heat; the nearest approach to warmth being obtained in bed. After two or three days, the attack would end by a blush of redness appearing across the forehead. When this came, the chilliness always ceased. During these attacks, she does not usually feel ill, but takes her food almost as usual. Recently, that is, during the last six months, the attacks, which have recurred almost monthly, have been attended by swelling of the eyelids. The lids, when I saw Mrs. B., were still somewhat swollen, the lower ones especially, and the condition of solid oedema of the lids was clearly threatened. Her ears also had of late become swollen and red during the attacks. Thus it seems probable that the attacks of chilliness was really a modified form of rigor preceding slight attacks of recurrent erysipelas. It is remarkable that they should be so prolonged and attended by so little disturbance of health, and followed by such very slight erysipelatous redness. Still the gradual increase of the local change, and the production of oedema, seem to definitely place the attacks in this category.

Another explanation is, however, possible, and it is that the attacks are indicative of liver-disturbance. Mrs. B. has large patches of xanthelasma on her upper eyelids, the largest being, contrary to rule, on the right side. She has known of these for two years or more. She is also liable to attacks of dizziness and dimness before her eyes. Mrs. B. is 62 years of age, of a phlegmatic temperament. She says that she cannot exist without fresh air, and is accustomed to sit in a draught of wind whenever she can.

X.—DUPUYTREN'S INDURATION OF PALMAR AND PLANTAR FASCIAE, WITHOUT MATERIAL CONTRACTION.

A rather peculiar form of contraction of the palmar fascia was presented in the case of Mr. L. F. It occurred in his right palm only, and affected the fascia in front of the middle finger, and not that of the ring finger; and, although there was a long thick band of indurated tissue, there was comparatively little contraction. He had similar bands in the plantar fascia of each foot, but again without any obvious tendency to contraction. His age was 52. He was in tolerably good health, and there was no history of gout in the family.

As is well known, the prominent symptom in Dupuytren's disease is contraction. We see every now and then, however, cases, such as the above, in which there is great induration and but little tendency to contract. In these, I think, the induration is more superficial than in the more common cases. I have just seen another case much like that of Mr. F. A long band of bossy induration extended up the palm in front of the ring finger, puckering the skin, but not drawing down the phalanges in the least. It is not common (as in Mr. F.'s case) to find the plantar fascia affected.

XI.—ASPHYXIA OF THE EXTREMITIES, BEGINNING IN MIDDLE LIFE: INHERITED GOUT: CURIOUS FORM OF CUTANEOUS TOPHI IN HANDS AND FEET.

A very remarkable example of asphyxia of the extremities came under my notice in the person of a Miss B., in November, 1885. She was 60 years of age. Her hands were livid and cold, like those of a corpse (although she had been sitting for some time in a warm room), and her feet were almost in the same condition. Her legs, just above the ankle, pitted on pressure, the skin being pale and tallowy. The urine had been frequently examined, and never contained albumen. She could never put her hands into cold water, since it always made them die, and caused her a distressing sensation at the heart. Anything in the slightest degree tight on the hands or feet made them yet colder, and caused them to ache. Thus she had quite given up the wearing of gloves, and carried her hands in a large muff. Her feet were in loose furlined boots; and, when at home in the evening, she often found it more comfortable to take off her stockings. It was a very interesting question as to how far Miss B.'s condition was connected with gout. There was no doubt that she inherited it in an unusual degree. Her grandfathers on both sides had suffered severely from it. She herself had passed through an acute, definite attack of gout in the great toe, some years ago, at Aix-la-Chapelle,

and she had had many less definite attacks of inflammation of joints. Twenty years ago, the late Dr. Falconer, of Bath, whom she had consulted on account of an inflamed knee, had told her that she was most certainly the subject of hereditary gout; yet, not a single joint had become crippled; she had no *nodi digitorum*, nor any tophi in her ears. She asserted that she had "often had chalk-stones come out of her fingers." On investigating this symptom, I found that she did not mean the ordinary discharge from large concretions about the joints, but the escape of little sub-epidermic masses, not bigger than shots. One of these she brought for my inspection, and she showed me in her fingers, and chiefly in their palmar aspects, many little pits, from which, she said, others had escaped. Some had also come away from the skin of her heels, but none from the toes. These concretions were coming away at the time that she consulted Dr. Falconer, twenty years ago, and were one of the conditions which caused him to declare that she was the subject of gout. In addition to the inheritance of gout, as possible factors in the production of her present condition, we must note that, in early life, she suffered much from biliousness being habitually, as she said, yellow as a lemon; and, next, that in 1847, an influenza year, she had nearly died of that disease. She believed that her heart had been much weaker ever since that illness, and she had been told that, during her illness, they did not dare to move her, on account of its extreme feebleness.

Miss B.'s mode of life had always been careful. She took, in great moderation, home-brewed beer in early life. She was a lady of remarkable intelligence, great benevolence, and very active habits. As a fact for ophthalmologists, it may be recorded that she suffered from myopia; and had used the same spectacles, for all purposes, from the age of 12 to that of 60, and still enjoyed perfect sharpness of vision. Her pulse was compressible, but by no means very feeble, having an intermission every ten beats. There was no evidence of calcareous disease of the arteries. I must now describe a very remarkable illness which Miss B. had recently passed through, and for the remains of which, in fact, she consulted me. She had all the spring "felt much gout about her." It was in November that I saw her, and she told me that, in the preceding August (2nd), she had awoke, one morning, to find her left foot dead. It felt like wood, and was cold and livid. In the course of the following morning, severe pain developed in the sole and heel, and whole foot, excepting the toes. The pain became intense, and finally passed upwards, and settled in the back of the hip. At this part, it was unbearable in severity, and was only relieved by a morphine-injection. After lasting about twenty-four hours in the hip, it passed again to the foot, and settled in the sole. She was six weeks in bed with this attack, and could not bear anything to touch her foot; yet, during this time, it was not much swollen, but felt hard, and, instead of being red and hot, remained cold and livid. She says that she was never out of pain, and never slept. The deeply seated pain had not left her when she got up, nor, indeed, was she wholly free from it when I saw her. The whole instep was still swollen. She said that she had felt as if there were a raging fire in her foot, while its surface was still cold. Was this an attack of gout? If we reply in the affirmative, as I think we should be justified in doing, we have to meet the fact that all sorts of gout-medicine were used during the attack, without material benefit. She was under the able care of Mr. Willis, of Gloucester, in the first instance; and, at the end of her illness, Dr. Long Fox, of Bristol, was consulted. Miss B. was of dark complexion, and rather pale. She had enjoyed perfect regularity of menstruation from the age of 15 to 35, and she considered that, since the cessation of the function, her health had not been so good as formerly. She had been liable to flushings and headaches, from which she had been previously free. Her hands felt, she said, wooden and awkward, from their coldness and slight swelling; but, as already stated, none of her finger-joints were in the least swollen or stiff. I examined her ears, and there were no traces of tophi or of chilblains. Her urine contained neither albumen, sugar, nor excess of acid.

I got some further facts, at a subsequent visit, as to the very peculiar form of chalk-stones which had occurred in this case. It is to be noted that they had never occurred except on the fingers and the heels, and that the liability to them had extended over twenty years. They formed in, or just under, the inner layers of the skin, and gradually worked their way to the surface, appearing as little dull white patches. Some of them inflamed before giving way; but others burst, and discharged their contents, without ever becoming, in any degree, either red or painful. The contents discharged differed much in different instances; sometimes, a little dry powdery chalk; sometimes, chalk and water, or pipeclay; and at others, a little nodular mass, as hard as bone. One of the latter kind Miss B. brought to me. It was about as big as the thicker half of a barleycorn, very hard and smooth, like bone.

What I subsequently learnt, made me yet more certain that the attack in the foot was, as diagnosed at the time by her surgeon, acute gout. The pain began in the middle of the night, and after an unwanted supper on beef. The numbness of the foot was probably due to the extreme severity of the pain in the tarsal joint which was inflamed. I have known a case of acute gout of the shoulder-joint mistaken for paralysis of the upper extremity, on account of the helplessness and numbness of the limb, which were induced, I believe, by the extreme severity of the pain in the joint.

The peculiarities of the attack; the coldness of the part, instead of heat; and its lividity, instead of redness, were, no doubt, due to the previously existing peculiarities in Miss B.'s circulation. Turgescence of the venous system is, under many conditions, a noticeable feature in gout. We may ask the question, whether, in Miss B.'s case, the gout-tendency had anything to do with the production of the general asphyxia of the limbs. I saw, some years ago, a gentleman, a member of our own profession, aged about 65, in whom there was good reason to suspect gout, and who, subsequently, had a chronic enlargement in the joint of one of his fingers, and a very peculiar condition of one toe. It became a little swollen, blue, and livid, and remained so for a month or two. We were very anxious lest it should pass into gangrene; but the condition was unattended by pain, and eventually it passed completely away. In Miss B.'s case, at the time of her second visit, I again carefully observed the state of her circulation. Her fingers, on this occasion, were not either livid or cold; for the day was warmer, and she had been sitting in a very warm room. Notwithstanding this, however, her feet were cold, and as blue as those of a corpse. I noticed that her hands, which were cool and of a dull-red colour, were rough and coarse, like those of a labouring man, and her nails were broad and somewhat roughened. She complained that all her fingers felt thick and awkward; they were "all like thumbs." When we remember the remarkable tendency to the formation of subcutaneous topi on the hands and feet, and on these parts only, the conjecture becomes, I think, not improbable, that the venous circulation, in parts which had long suffered from definite gout, may have become permanently altered by it.

As regards diet, Miss B. has possibly not managed herself quite well. In early life, she took home-brewed beer regularly, in small quantities. Dr. Falconer told her, twenty years ago, to avoid beer as poison, and she did so with decided benefit. She continued, however, to take wine irregularly—that is, occasionally, when feeling to need it; and she has consumed meat rather largely. I advised that she should cautiously put herself on partial vegetarianism, and take, as a stimulant, whisky and water only. She said that she was very dependent on meat, and never felt at her best until she had had her meat-meal.

[To be continued.]

ACTINOMYCOSIS HOMINIS.

By G. D. ACLAND, M.D.,

Demonstrator of Morbid Anatomy at St. Thomas's Hospital, etc.]

ACTINOMYCOSIS is a progressive inflammatory affection, caused by a definite micro-organism; it results in the formation of granulation tumours and fibrous tissue, and, in man, generally ends in suppuration. The disease is characterised by the presence of minute rosette-like nodules, which are found firmly embedded in the centre of masses of recent inflammatory tissue, or floating in the pus from suppurating cavities. It attacks all organs and tissues alike, producing results which depend rather upon the nature of the tissue affected, than on the specific character of the disease.

The organism was first accurately described by James Israel in 1877 (Virchow's *Archiv*, vols. lxxvi and lxxviii), though it had been observed, and its presence noticed, long before this date. Ponfick subsequently brought forward evidence to show that the disease in man was the same as that which had been described in animals. This, although no doubt true in some cases, must, for the present, be considered as incapable of general proof; for, though there are many points of resemblance in the course of the disease, as it affects man and cattle, yet the appearances of the organism in the two cases often bear no resemblance to one another. Hence, probably, more than one organism is included under the same name. In man, the general tendency of the new formations is towards rapid disintegration, with the formation of abscesses, sinuses, and fistulae, and by

the growth of dense bands of fibrous tissue, which give to the abscess-cavities a honeycombed appearance, which is almost characteristic of the disease.

In cattle, the tendency of the disease is towards the formation of tumours, from which fact it has received a multitude of names, such as osteosarcoma, lymphoma, lingual tuberculosis, from its supposed resemblance to such diseases; and the calcified remains of the organisms have been recognised by Duncker and Virchow in nodules in pork, which had, up to that time, been regarded as cysticerci which had undergone calcareous degeneration (Virchow's *Archiv*, vol. 98, page 546).

The first case recognised in England, in man, was discovered by Dr. Sharkey and myself in the early part of 1885 (the appearances are described in the *Proceedings* of the Royal Medical and Chirurgical Society, November 24th, 1885); and, subsequently, Mr. Shattock found two specimens of the disease which had been placed in the museum of St. Thomas's Hospital, as abscesses of the liver. My thanks are due both to Dr. Sharkey and Mr. Shattock for the material which has enabled me to work out, as far as it has been possible to go, the minute structure of the organism from which the disease has derived its name; and the object of the present notes is to call attention to the occurrence of the disease, and the differences which exist between it and that which is described in all recent works on pathology, which seem to be taken from specimens of that which is known as actinomycosis bovis. The organism, in this latter disease, is described as a tufted rosette of radiating pyriform, or club-shaped structures. These are either single, or divided into dissepiments, and are of considerable bulk. On reaching its full development, it has the outward form of a mulberry, this appearance being due to the aggregation of separate masses of the club-shaped elements, which spring in all directions from a matted tuft of filaments within (Ziegler's *Pathological Anatomy*, ed. I, art. 134). This very accurately describes the appearances in cattle; but in some cases, at any rate in man, they are entirely different.

In three out of the four cases which I have had the opportunity of examining sections, stained with logwood or methyl blue, showed growths varying in size from that of a pin's head downwards, which seemed to consist of broad striae radiating from a common centre, or enclosing a central space, which was to be filled with the debris of inflammatory cells.

These striae had nothing in common with the sharply defined, highly refractory, club-shaped masses described above, and, when stained by Gram's method, showed that the appearance of radiation is due to the streaming out into the surrounding cells of innumerable very fine threads, some twisted, some branched, many single, and often running for a considerable distance away from the central mass, or terminating in minute clumps of fibres, which were evidently the foci of new growths of a similar kind. As the growths extend peripherally, a series of fairy rings were formed, which, fusing together, leave considerable areas of degenerated products in the centre of the widening ring; both amongst the rings, and external to them, were considerable numbers of cells, which had undergone fatty degeneration, with a few large epithelioid cells. In two cases, no traces of the club-shaped elements, so characteristic of actinomycosis bovis, were to be found; in the third case, which died in the Military Hospital, Berlin, and for which I am indebted to the kindness of Dr. Erhardt, there were a few club-shaped masses occurring amongst the fibres, but the majority of the growths consisted of fine threads, branching frequently, and radiating from a common centre. It might be urged that the method of preparation had destroyed the club-shaped elements, and left only the threads. This is not the case; as specimens of actinomycosis bovis, treated in identically the same manner, not only showed the well known rosettes in their typical form, but showed no trace of the radiating fibres, which are so characteristic of this particular form of the disease in man. In a fourth specimen, given me by Dr. James Israel, the club-shaped masses preponderated, and the appearances were very much like those that are seen in cattle, but smaller and less clearly defined than in actinomycosis bovis. These observations show either that the organism may be present under the different forms, or that similar diseases are produced by different organisms. There is, at present, no proof that the one form can, by a process of involution, or evolution, pass into the other.

Numerous experiments have been made, with a view of deciding these points, and of endeavouring to settle the precise nature of the organism described. It has been supposed that the club-shaped bodies were conidia, and that the threads were mycelium; neither observation or experiments have confirmed this view.

Dr. James Israel considers the results of his own experiments as unsatisfactory, and this is the conclusion at which most observers,