nor again in cases where it remains so after a course of boracic acid administered internally and continued for a fortnight or three weeks. When these conditions exist, they usually point to the presence of a severe form of chronic cystitis. Under these circumstances the stricture, if it does not yield to dilatation, is best treated by external urethrotomy, and at the same time the cystitis can be relieved by draining and irrigating the bladder through the perineal opening. Provided that the urine is acid, I believe that a slight amount of pus in the urine is not a bar to internal urethrotomy; for this condition was present at the time of operation in four of the six cases above referred to.

Manchester.

TWO CASES OF HÆMORRHAGIC URTICARIA.

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THE following two cases appear to be sufficiently similar and unusual to be worth putting on record. I am indebted to Dr. Donkin for permission to publish them.

John C—, aged seventeen years, a letter sorter living in Westminster, was admitted into the Westminster Hospital, under the care of Dr. Donkin, on April 4th, 1888. He had never had any previous illness, and his family history was excellent. No history of hæmophilia. The account he gave of his present illness was as follows:—On March 28th he noticed a small red slightly raised spot about a quarter of an inch in diameter on the inner side of the right leg, followed in a day or two by numerous similar spots on the inner sides of both right and left legs. They appeared to the patient to come out first as red spots. They were accompanied by slight itching. Both ankles and the right knee began to swell on March 1st; they were slightly painful and worse at night. There was no headache or sickness, but he felt slightly feverish. There was no history of any unwholesome ingesta immediately before the illness, and he had had plenty of wholesome food and vegetables daily. The only unusual article of diet he could recollect was an ostrich's egg, which he had eaten on March 31st. He was occasionally employed in sorting foreign letters. He had recently had unusually hard work and not much fresh air. On admission he was noted as not appearing particularly ill or in pain. The hands and arms—and to a less degree the face and buttocks—were covered with numerous slightly raised spots of irregular outline, but tending to be circular, about a quarter of an inch in diameter, the most recent of which had the appearance of ordinary urticarial wheals, but the older ones were of a dark-purple colour from the presence of effused blood. The oldest spots of all had subsided, leaving nothing but a stain presenting the various colours usually resulting from the changes undergone by effused blood when becoming absorbed. There were many such stains on the legs and feet. There was considerable effusion into the right knee, but no pain. There was nothing abnormal detected in the heart or lungs. The temperature reached 100° in the evening. On April 7th the left elbow and both wrists became swollen, tender, and hot. The back of the left hand also became swollen. There were no other symptoms present, and the patient did not appear ill. On the 9th subperiosteal hæmorrhages on the lower part of the right and upper part of the left radius appeared and there was some bleeding from the gums. On the 10th hæmorrhage took place into the right upper eyelid, which lasted for some days and then disappeared, and the right epididymis became swollen and painful. On the 11th the left eyelid also became greatly distended with blood, and for the first time since admission the temperature rose to 103·8°. On the 12th there was effusion of blood into both sides of the neck and tongue. Slight swelling of the left knee also appeared, which rapidly subsided. The swelling over the radii had now subsided, leaving a stain like a bruise. The hæmorrhagic urticarial spots had meanwhile mostly subsided, although a few similar ones continued to appear. Slight diarrhoea now came on, and lasted for a few days, but there was no melæna or hæmaturia. The blood was at this period examined by Dr. Hebb, but whether drawn from spots or from any other part of the body, by day or by night, revealed only a slight excess of white blood-corpuscles and no micro-organisms. There was no enlargement of the spleen or liver. On the 13th great œdema of the whole scalp appeared,

which gradually subsided in the course of the next three days. Eyes examined ophthalmoscopically; no hæmorrhages seen. On the 16th his sputum contained some dark blood; and on examining the lungs impaired resonance and bronchial breathing, with a few crepitations at the end of inspiration, were detected in the left supra-clavicular and supra-spinous fossæ. Temperature 99·4°. In the course of the next few days his general condition improved, but the dulness at the left apex increased in extent, and the breath sounds became inaudible. An exploring syringe was introduced at the angle of the scapula, but nothing was withdrawn by it. Temperature ranged between 99° and 100°. On the 21st numerous fresh spots came out on both arms, shoulders, and ankles. They appeared first as ordinary urticarial spots, and then became hæmorrhagic. By the 25th the physical signs at the left apex were again normal. From this time no fresh spots appeared, and his general condition, which, indeed, at no time was at all serious, rapidly improved. On May 17th he left the hospital quite well. He was seen six months afterwards, and was then, and had been since his discharge, perfectly well.

The second case I did not see myself, but it appears from the description of the case, and from the impression it produced on those who saw it, to have been very similar, only more severe, and ending fatally. I abstract the notes from the case-book and post-mortem record.

George H—, aged twenty-eight, a potman, living in Westminster, was admitted under Dr. Donkin on Feb. 12th, 1887. The patient had suffered from a cough from the age of eight years. He had never been out of England. He had had plenty of vegetable food recently. On Feb. 5th he first noticed red spots on the thighs, which were tender to touch; at the same time his knees swelled and were painful. Shortly afterwards similar spots appeared on the arms, and the other large joints became swollen and tender. Next day the gums became swollen and tender. On the 8th similar spots appeared on the face, particularly round the eyes. On admission he lay high in bed; face pale; lips bluish; eyelids and surrounding tissue swollen, and covered with dark-purple patches; a similar patch on upper lip; many other patches, dark purple also in colour and slightly raised, on the arms and legs; gums soft and tender, but not much swollen; general bronchitis and emphysema; heart sounds clear; urine contained no albumen; temperature 103°–102°. By the 16th fresh spots had appeared on the back, and those on the face and extremities had extended considerably. They were tender when touched. On this day he was seized with great dyspnoea. On auscultation the heart sounds appeared still to remain clear, although much masked by the sounds in the lungs. The knees and wrists again became swollen and tender, and the size and number of the purpuric patches rapidly increased, and a brawny swelling appeared on the back of the hand. Temperature 101°. He died on Feb. 17th with symptoms of heart failure, the temperature falling to normal before death. The necropsy was performed eighteen hours after death by Dr. R. G. Hebb. The body was somewhat emaciated; both hands and both feet slightly œdematous. The face was covered almost as by a mask with a slightly raised purpuric rash. The lips were much swollen, tense, and of a purple colour. The gums were a little ulcerated, but not swollen and spongy. Over the rest of the body were numerous patches of a purple colour, similar to those on the face but not so large and confluent. These were most numerous on the hands and feet. These spots were due to extravasations of blood extending as deep as the subcutaneous tissue. Examination of the knee and wrist-joints gave negative results. The chest was barrel-shaped. Lungs extremely emphysematous; pallid; no consolidation. The right pleural surfaces generally adherent. Bronchitis. Larynx *nil*. Heart, 11 oz. Ring of recent vegetations on mitral valve and a few on the tricuspid. There were a few subendocardial petechiæ and extravasations into the cardiac tissue. Aortic valves normal. Pericardium normal. Liver, 49 oz.; of a dark purple colour and firm consistence. Spleen, 4 oz.; of a dark purple colour; firm. Kidneys, each 5 oz.; resemble cardiac kidneys in colour and consistence. No extravasation in the liver, spleen, or kidney. Stomach: walls thin; some catarrh; a few petechiæ at cardiac end only. Brain, 45 oz.; membranes and nervous tissue *nil*. Microscopical examination of the hæmorrhagic patches in skin and heart muscle showed no evidence of red corpuscles, but there were numerous

small arterial vessels seen surrounded by small cells, and leucocytes were present in great numbers. The mitral valve, however, showed the effusion of a great quantity of red corpuscles between its layers.

When these cases were under observation it was felt at once that they were not easy to class under the heading of either simple or hæmorrhagic purpura, or, on the other hand, under that of scurvy. They certainly resembled the latter disease in the occurrence of subperiosteal and subcutaneous hæmorrhages, in the hæmoptysis, and bleeding from the gums; but on closer inspection the cases were seen, after all, to materially differ from that affection, and this difference was accentuated by the absence of any history of deprivation of fresh meat and vegetables. According to some, the diagnosis of scurvy is unjustifiable, unless such a want of fresh food is proved. They were certainly cases of purpura; but, then, purpura is a very widely reaching term, used to describe diseases of so different severity and aspect that it may well be doubtful whether they are due to the same morbid cause. As an instance of this may be quoted, on the one hand, the purpuric rash appearing on the limbs of badly fed and anæmic people, and on the other those severe cases of a purpuric rash, associated with hæmorrhages from the various internal organs, which may prove fatal in as short a time as a fortnight or three weeks. Evidently a disease which may affect the system so profoundly and so generally as is the case in the severer forms of purpura must be an infective one, due to the absorption of some poison, very probably of a bacterial nature, and hence liable to produce very different results in the various persons affected, according as their power of resistance is greater or less. In relation to such a causation, one naturally turns to the sanitary surroundings of the patient. Now, in the case of John C—— it seems very possible that he may have been exposed to a gradual process of poisoning due to an imperfect condition of drainage, as four months later his brother was admitted into Westminster Hospital with enteric fever. I then heard that there was and had been for some time a very bad smell in the house, which led to an inspection of the drains. The main drain running under the house was found to be completely blocked, and there was an extensive infiltration of sewage into the subsoil. May it be that the condition which led to the one brother being attacked by enteric fever, affected the other in such a way that he was attacked by a disease such as above described?

The eruptions in both the cases reported were sufficiently similar to enable one to consider them together. The first thing observed was a raised, somewhat circular elevation of the skin, about a quarter of an inch in diameter, which had all the appearance of an ordinary urticarial wheal. But into this wheal shortly took place an effusion of blood, giving it the aspect of a typical purpuric spot, slightly raised above the surface of the skin. Here is an instance in which the local inflammation producing the wheal is sufficient to so impair the integrity of the capillaries of that portion of the skin that a hæmorrhage takes place. On the other hand, cases are sometimes met with in which the extravasation of blood is the primary occurrence, and the localised inflammation secondary. As an instance in point I may quote a case recently in Westminster Hospital under Dr. Sturges, of a boy (who was ultimately proved to have peritonitis secondary to a perforating duodenal ulcer) having numerous purpuric spots on his arms, legs, and prepuce, which had set up a slight amount of local inflammation, and caused the spots to be distinctly raised above the skin, and those on the prepuce sufficient inflammation and swelling to prevent him passing his urine for twenty-four hours. Other instances of erythema, sometimes associated with hæmorrhage, are the rashes of scarlatina and measles, and the erythema occurring in acute rheumatism. The mention of acute rheumatism suggests another point in these cases—namely, the swelling in or around the joints. I think there was no doubt that in both cases the swelling in the region of the large joints was intra-articular. The appearance of the joints was somewhat the same as that of a rheumatic arthritis, but the swelling was more passive, and the redness of the skin covering them almost absent. There was not, moreover, the same acute tenderness. The arthritis, in fact, presented rather the aspect of that occurring in pyæmia; the inflammation, however, following the favourable course of the joint affection in the milder and more chronic forms of pyæmia, such as occur in scarlatina and gonorrhœa. The swellings on the back of the hands and fingers, however, were of a different

nature, and were evidently outside the joints, and simply due to the inflammation set up by considerable subcutaneous hæmorrhages taking place there. Of the same nature were the subperiosteal swellings occurring on the radii of John C——.

With relation to the question of rheumatism, it is to be remarked that in the case of George H——, the necropsy revealed endocarditis, but it was not in any way similar to the endocarditis found in acuterheumatism, differing particularly in the presence of effused red blood cells between the layers of valve. The case of duodenal ulcer above referred to also presented the joint swellings, which were at first thought to be rheumatic. They were obviously in the joints, and they resembled many rheumatic joints in their perfectly healthy appearance when examined post mortem. The text-books on skin diseases appear to touch very lightly on the subject of urticaria associated with hæmorrhages, it being only just mentioned by both Dr. Tilbury Fox and Dr. Radcliffe Crocker, and not at all in Ziemssen's Handbook of Skin Diseases. Dr. T. Colcott Fox has kindly supplied me with some notes of recorded cases of somewhat similar affections. In the *Dublin Medical Journal*, 1842, Dr. Todd, of King's College Hospital, describes "a remarkable case of cutaneous hæmorrhage accompanied by spots of urticaria (purpura urticans)," which shortly abstracted is as follows:—

W. P——, policeman, aged thirty-nine, a strong, temperate man, had lately had hard work. On Oct. 15th, 1841, he began to feel stiffness in the calves. On the 17th stiffness came on in the right knee, with urticarial spots on the legs and thighs. On the 18th the right ankle became swollen, spots dark; mercury was prescribed. On the 19th there were pain and swelling in the elbows, and urticarial spots the size of sixpence on the hands. On the 21st the eyelids and the whole face were much swollen. On the 22nd the following was the condition of the patient: the entire body and face cedematous; mercurial salivation; immense number of reddish or livid spots on forehead, scalp, chin, and limbs, raised and wheal-like, from the size of a shilling downwards, the most recent whitish, older ones livid; extravasation on the side of the uvula, nowhere else. The wheals continued to come out in crops for some weeks, and then gradually decreased. He got quite well by the end of November. Dr. Todd remarks about this case that "the hæmorrhage in the spots appeared to ensue on and probably to be occasioned by the same physical cause which gave rise to the nettle rash. In the paroxysms of nettle rash there is doubtless a considerable hyperæmia of the skin. If this occurs in a constitution enfeebled by considerable exertion, and in which consequently the nutritive processes must be impaired, it is very likely that a rupture of some of the minute capillaries occurs, and thus hæmorrhage takes place into the swollen part of the skin." This case Dr. Todd first diagnosed as one of Bright's disease on account of the œdema present, but subsequent examination of the urine showed that there was no albuminuria. Dr. White, in the *Boston Medical and Surgical Journal* for Oct. 10th, 1878, describes a case of recurrent hæmorrhage with urticarial and bullous effervescence. In vol. xviii. of the Clinical Society's Transactions, p. 143, Dr. J. J. Pringle reports a case of recurrent hæmatemesis with urticaria, and refers to cases in Graves's Clinical Lectures, one of which appears very similar to the cases above reported.

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NOTES ON ONE HUNDRED CASES OF OSTEOTOMY.

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IN publishing one hundred consecutive cases of osteotomy, I do not desire to offer anything very new in the way of treatment, but merely to place on record a few facts connected with this great department of modern surgery, and to show the great success that may attend cases treated in apparently unfavourable surroundings. The deformity in nearly every case has resulted from rickets, and the degree of deformity has been chiefly brought about by parental neglect. The age of the cases operated on varied between nine months and forty-one years. Two children, aged respectively nine and thirteen months, were operated on for deformity the result of fractured femur, evidently caused at birth, but which was never discovered till the femur had