child having in previous winters suffered from chilblains, for which these patches were, very naturally, mistaken; it, was noticed, however, that they were painless on this occasion.

The knee-jerks were faint and very difficult to elicit. No other changes were found indicative of visceral disease. The blood presented the characters of secondary anaemia: red cells, 2,500,000; white cells, 7,000; haemoglobin (Sahli), 35 per cent.; slight poikilocytosis. The Widal test, performed by one of us (F. W. E.), was negative.

During the following week the symptoms persisted with little change. The temperature rose a little higher in the evenings (100° or over), and often failed to reach the normal in the morning. There was at the end of that time a fresh development in the form of a purplish tender swelling over the left malar region, of the size of half a crown, doughy, and the epidermis over it felt thickened and was dry and scaly. The mottling on the finger-tips and toes was more deeply coloured and more extensive; the skin over the backs of the fingers looked thinner and more glossy, and was difficult to pinch up; so also the skin over the front of the tibiae.

Up to this point we made no diagnosis, though we inclined towards lupus erythematosus. Within a couple of days a patch similar to that on the left cheek developed over a corresponding area on the right side, and a connecting streak of purplish discoloration traversed the bridge of the nose, thus completing the bat's-wing arrangement of the eruption. By this time the eyelids had become swollen as well as the nose and cheeks. We now concluded that the case was one of acute lupus erythematosus, and the bad prognosis which attaches to this form of the disease came true only too soon. From that day onward, that is, from the end of the third week, the disease progressed rapidly. The temperature gradually mounted higher, and the rash spread, appearing on the loins in the shape of small, purplish, slightly elevated patches; then on the buttocks, on the back and sides, always arranged more or less symmetrically. The spots on the sides were grouped as though following the lines of the intercostal nerves. The spots on the lateral aspects of the hands began to spread upwards, but the backs of the hands and the centre of the palms remained comparatively free. In a few days the spots became confluent. The patch on the left cheek developed one or two small herpetiform blebs, with clear serous contents. Then, three days before death, that is, on May 9th, the skin began to break superficially, and soon a diffuse haemorrhagic exudation issued, from minute points, from the skin of the back, buttocks, and face. One would have thought that it would be exquisitely painful to be handled while in such a condition; but it appears not to have been so. She complained far more of the least exposure to cold—even of the touch of a cool finger at the wrist—than of any discomfort caused by necessary manipulations. The face finally became an unsightly mass of boggy swellings from which blood-stained fluid trickled; crusts formed in the nostrils and on the lips; blood oozed from the ulcers on the roof of the mouth; and during the last two days of life there was trismus, rendering an efficient cleansing of the mouth impossible. During these last three days the temperature ranged from 105° to 106°, and death ensued—preceded a few hours by a convulsion—on May 12th, one month from the first day of observation. With the exception of a little albuminuria during the last week and of some dilatation of the heart towards the end, there were at no time any symptoms referable to any internal organ. A week before death a further examination of the blood was made, both bacteriologically and histologically, with negative results.

On post-mortem examination nothing was found which could throw the faintest ray of light upon the disease. The spleen, as might be expected, was a little enlarged and pulpy; the liver a little fatty; and there was cloudy swelling of the heart muscle, liver, and kidneys. Though every organ was subjected to a microscopic examination, nothing else was found except a single small calcified mesenteric gland. It is particularly to be noted that there were no other signs of tuberculosis, old or recent. Films were made from every organ, and examined for bacteria and protozoa, but nothing suspicious was found. The epithelial layer of the skin, particularly the rete Malpighii, was markedly thickened in places, and there was a diffuse cellular infiltration of the corium; in other places the rete was unusually thin. The more minute histological changes of the skin could not, however, be studied, as the rest of the specimen was unfortunately lost during a removal.

The diagnosis of acute disseminated lupus erythematosus (Kaposi) seems a justifiable one. The initial discoloration round the finger-tips, so like that of chilblains; the affection of the lobes of the ears; and, later, the bat's-wing arrangement on the face, are highly suggestive, if not characteristic. The principal objection that could be raised against the diagnosis is the development of minute blebs on the malar regions. Bullae are said not to be a feature of the disease. However, Kaposi in his earlier publications refers to the occasional formation of minute bullae and serous exudation, principally over the cheek bones, as in this case; and subsequent observers have now and again noted the same occurrence. The bullae were certainly not associated with erysipelas; the "erysipelas perstans" which Kaposi mentions as being of frequent occurrence in these cases was absent. A very unusual

feature was the ulceration on the hard palate, the rest of the buccal mucous membrane escaping. Trismus has not previously been noted, so far as we know. Very remarkable was the contrast between the objective symptoms and the patient's actual complaints; on the one hand, an acute and diffuse affection of the skin, with serous and haemorrhagic effusions and exfoliation of the horny layer, and ulceration of the hard palate; on the other, only headache, general malaise, photophobia, and acute hyperaesthesia to cold. To this very marked hyperaesthesia we have found no reference elsewhere; it was her constant complaint, not only when the temperature was high, but in the earliest stages. It is worthy of note that the general symptoms were already those of a severe toxæmia at a time when the cutaneous changes were still slight and confined to the fingers, toes, and ears. These toxic symptoms steadily increased in severity, though the patient never lapsed into the typhoid state.

The pathology of the disease is still unknown. Tuberculosis is still considered by some to be an important factor. Our case, however, does not support this view; the family history showed no tendency to tuberculous infection, and there was no sign of tuberculosis of any organ; the one calcified mesenteric gland may safely be discarded. That the process must be an acute infective one no one can doubt who has watched such a case, especially when neither erysipelas nor pneumonia (the most frequent complications of the disease) have blurred the picture.

As for treatment—everything conceivable was tried in turn—beta-naphthol, quinine, mercury by the mouth, atoxyl injections in the later stages, ointment and plasters, prolonged warm baths, and lotions. The only conviction to which we came was that ointments were badly borne, and that lead lotion alone gave the slightest relief.

A CASE OF HENOCH'S PURPURA.

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OWING to the rarity of Henoch's purpura, the following case appears to be worthy of record. It was characterized by the following symptoms: (1) Swelling and oedema around joints; (2) purpura; (3) abdominal colic; (4) vomiting; (5) oedema of lax tissues; (6) ? subperiosteal haemorrhages; (7) haemorrhage into the lungs; (8) albuminuria; (9) haemorrhages from the bowel; (10) slight haematemesis, with large quantities of phosphates in the urine.

N. J., male, aged 5 years, had an attack of epigastric pain on November 1st, 1908. He was given some calomel, and the pain was relieved. He then developed a slight cold.

On November 4th there was some swelling of the right ankle and elbow and left hand. There was oedema over the joints; but no effusion into them, and no pain on movement. There were a few scratches and papules around the swollen areas, but none of these were purpuric. The boy seemed well. There was no rise in temperature and no increase in the pulse-rate. The condition seemed unusual, but not significant of any definite disease, and I ascribed it to an irregular urticarial

state, with some swelling of the subcutaneous tissues. In the evening there was definite swelling of the joints of the hands; of both knees and of the left ankle-joint with pain on movement. There were definite purpuric spots on the legs. There was a heavy deposit of phosphates on boiling the urine.

On November 5th abdominal pain, referred to the umbilicus, occurred. This gradually became worse, until it was so severe that the child sat doubled up and screamed with pain.

Increased paroxysms occurred at intervals. Pressure increased the pain, but there was no rigidity of the abdomen. The spleen was not palpable. The patient vomited once, after food. As the colic developed, the pain and swelling of the joints subsided.

November 6th and 7th. More purpuric spots on the penis, the nates, back, and face; also on feet and legs. Phosphaturia very great; abdominal pain continued; bowels open after enema.

November 8th. Dr. H. D. Rolleston saw the case with me and agreed that the case was one of Henoch's purpura. He recommended that 10 c.cm. of normal horse serum should be given by the mouth in two doses, and that, if this failed, calcium chloride should be given in 5-grain doses.

November 10th. Great tenderness of both tibiae and spine, so that the mere touch of a finger caused pain. Forearms and hands swollen again.

November 12th. Temperature rose suddenly to 104.2°; pulse, 176; respirations, 26; signs of consolidation appeared at the back of the right lung and advanced until the whole lower lobe of the right side presented signs of lobar pneumonia. These signs began to clear up on November 15th, and in twelve hours the lung appeared normal.

November 16th. A patch of consolidation appeared over the back of the left lower lobe, and for a short period of about twelve hours the signs of consolidation reappeared on the right side.

November 17th. Lungs clear; abdominal colic, which had disappeared while the lungs were affected, recurred.

November 18th. Diarrhoea commenced, the stools consisting almost entirely of mucus, blood, and shreds. There was some albuminuria. The boy also vomited several times. There was tenderness of the abdomen, but no rigidity. Dr. Rolleston again saw the case with me.

This condition of abdominal colic with stools, as above described, continued till December 1st, but improvement began on November 23rd, and was uninterrupted after November. On one occasion the vomit was streaked with blood, and throughout purpuric spots were appearing in considerable numbers almost daily. There was also a good deal of swelling of lax tissues with haemorrhage into them. The prepuce at one time became enormously swollen. There was also swelling of the scrotum and the eyelids at other times. These swellings subsided very rapidly, usually within twelve hours. On another occasion there appeared to be a haemorrhage into the corpus cavernosum as the whole penis was swollen and curved to the right.

The treatment given was very various. At first tr. opii m iij, and tr. belladonnae m v, was given four-hourly. Later, morphine gr. $\frac{1}{2}$ was given hypodermically every four hours as the pain necessitated, and this was continued throughout.

Horse serum, as stated, was used; and calcium chloride in 5-grain doses, and later calcium lactate in 7½-grain doses were given four-hourly for six doses with intervals of forty-eight hours. Adrenalin chloride 1 in 1,000 was also given for some time in 5-minim doses. Small doses of liq. strychninae were given during the lung affection.

The case was particularly interesting, apart from the rarity of the disease, inasmuch as it was quite impossible to say on first seeing the patient that such a sequence of events was likely to occur. The child did not look ill, and the onset of any serious disease did not seem likely. The recurrent nature of the disease was very well exemplified; over and over again it appeared as if the trouble was subsiding when some renewal of symptoms occurred. It was also remarkable how the dominant symptom disappeared so soon as a further one arose to take its place. Thus, the onset of the colic was accompanied by a diminution of the joint symptoms. The onset of the lung condition was accompanied by cessation of colic, and as soon as the lungs were clear colic recommenced.

The lung condition was most peculiar. Clinically the condition of the right side was, at its commencement and height, that of a typical lobar pneumonia. Was, then, the condition of the lung due to an intercurrent affection, or was it merely a symptom of the disease? The fact that a small patch appeared in the left lung was opposed to a diagnosis of lobar pneumonia, and the affection was of too short a duration—seventy-two hours—to be due to a bronchopneumonia. Considering the extraordinary rapidity with which the haemorrhage and oedema of the scrotum, penis, and eyelids were reabsorbed, and the short-lived affection of the lungs, it would appear that the condition of the latter was a symptom of the disease, and was due to haemorrhage into the lung alveoli, since nowhere else did oedema occur without accompanying haemorrhage.

With regard to the occurrence of pneumonia in the disease, Pratt,¹ in an article based on a collection of 43 cases, does not mention it, but says that pleurisy is a rare complication. I cannot find any other case recorded in which the lungs were affected, except Dr. Dean's case,²

and it seems that in this case the bronchopneumonia was not a symptom of the disease, but was of septic origin and consequent on tracheotomy.

The skin lesions were of two kinds: (1) Petechiae and larger haemorrhages, bright red in colour, and (2) more diffuse haemorrhages, bluish in colour. The latter occurred in lax tissues and cleared up in the same wonderfully rapid way as the lung condition, while the former persisted much longer.

Mr. Lett³ has called attention to the difficulty in deciding whether an intussusception has occurred in the course of a case of Henoch's purpura, when symptoms of intussusception are present. In the present case the symptoms led to great anxiety lest an intussusception should occur; but fortunately there was never any doubt about its absence.

The tenderness of the spine and tibiae was very well marked while it lasted, and was possibly due to haemorrhage under the periosteum, which cleared up as rapidly as in other places.

Phosphaturia was a prominent feature throughout. If the suggestion of Albu and Neuberg,⁴ that phosphaturia may be due to inflammation of the intestinal mucosa, is correct, its occurrence may be possibly accounted for thus in this case. As the disease is, at any rate in many respects, allied to angioneurotic oedema, it was thought advisable to keep everything ready for immediate tracheotomy in case need for it should unhappily arise. In Dr. Dean's case, quoted above,² tracheotomy was actually necessitated.

It is noteworthy that the patient's grandmother and aunt (maternal), who live in the same neighbourhood, have both suffered from "purpura," and other cases of purpura have occurred in the same district. In view of this it was thought advisable that all water taken by the patient should be boiled.

An interesting point in the previous history of the patient is that he had two or three attacks of appendicitis at the age of 3 years; the appendix, which was ultimately removed, being found to contain a concretion. The colic of Henoch's purpura may imitate appendicitis; and, though there is no reason to believe that in this instance the previous abdominal condition was due to Henoch's purpura, the knowledge that the appendix had been removed made the diagnosis somewhat easier.

With reference to treatment, horse serum did not appear to be of any avail. Dr. Soltau Fenwick and Dr. Porter Parkinson⁵ recorded a case of purpura haemorrhagica, in which also horse serum was given, and in their case it produced no effect. It seems that the large amount of morphine given may, by checking spasm, have prevented intussusception, as the amount of colic and haemorrhage pointed to its being a likely complication.

I am much indebted to Dr. Rolleston for his kindness in helping me with the treatment of the case, and also in revising these notes.

REFERENCES.

- ¹ Pratt, *System of Medicine* (Osler and McCrae), 1908, vol. iv, p. 709.
- ² Dean, *BRITISH MEDICAL JOURNAL*, 1907, vol. ii, p. 818. ³ Lett, *Brit. Journ. Children's Diseases*, 1908, vol. v, p. 343; *Lancet*, 1909, vol. i, p. 534. ⁴ *System of Medicine* (Allbutt and Rolleston), 1908, vol. iv, Part I, p. 551. ⁵ Soltau Fenwick and Porter Parkinson, *Lancet*, 1906, vol. i, p. 1244. Other cases recorded are: Honeyburn, *Lancet*, 1907, vol. i, p. 289; Greig, *ibid.*, 1908, vol. i, p. 1501; Elliott, *BRITISH MEDICAL JOURNAL*, 1906, vol. i, p. 920; Longley, *ibid.*, 1906, vol. i, p. 859; Havilland Hall, *Brit. Journ. Children's Diseases*, 1908, vol. v, p. 466.

Memoranda :

MEDICAL, SURGICAL, OBSTETRICAL.

SPONTANEOUS POST-MORTEM DELIVERY.

The following case is a unique one as far as I am concerned and is interesting from a medico-legal point of view.

A. B., a stout, robust young woman, had threatened to commit suicide in consequence of being pregnant and her young man refusing to marry her. At 4.30 a.m. on May 20th (Thursday) she was called by her father to go to work. He did not see her, but she replied and got up. She did not go to her work and was not again seen alive.

On May 22nd (Saturday), at 5.40 a.m., her body was seen floating on a warm water reservoir of one of the mills. The body was recovered and removed to the public mortuary, where, during the morning, it was washed and