believe the liquor sodæ arsenitis to be much more free from irritating action. It is an invariable point of practice to direct our patient to take his dose during, or directly after, a meal; and this is a judicious injunction—not only because the metal is less likely to depress and annoy when given on a full stomach, but, following the analogy of other drugs, we may venture to assume, even in the absence of actual physiological proof, that the preliminary solution in the gastric juice or the bile may be necessary to develop its full powers, and to promote its absorption.

Children generally bear arsenic remarkably well; and it has been stated by Bulkley and Ringer, and other authorities, that girls more especially may be given very large doses with impunity. But my own experience is entirely opposed to this; and the only case in early life, where the drug seriously disagreed, happened to belong to the female sex. Lilly H., aged 4, came under my care at the Belgrave Hospital for Children, with an unusually bad attack of psoriasis, due to no ascertainable cause. Five minims of liquor arsenicalis were ordered to be taken twice a day; and a week later, when she again presented herself, I was shocked to see the change in her appearance. From being plump, fresh, and rosy, she had grown dull, thin, pale, and dejected; her lips were dry, the eyes deeply injected, the tongue covered with a dirty yellowish fur and displaying a red tip and edges. The appetite was entirely lost. She complained much of thirst; was very restless and sleepless; skin hot and dry; pulse quick and sharp. The mother stated that, after four doses of the medicine, the child became very sick, and complained much of pain in the back of the neck. Recovery rapidly followed soothing treatment and withdrawal of the drug, and a cure was eventually effected by phosphorus; but the case shows that, even in the very young, idiosyncrasy is occasionally, though rarely, observed, and must at all events be remembered, even although, unfortunately, it cannot be foreseen.

Finally, the all-important question may be asked: Can we really hope permanently to cure skin-diseases by arsenic? I think we may; true although it undoubtedly is that, whilst one case of psoriasis will rapidly improve under its use, another, apparently similar in every respect, will prove entirely rebellious; and, over and over again, we shall be disappointed by the frequency of relapse. But, if the eruption come under our care early, and we treat it carefully and systematically, and, above all, continue the medicine for some time after the skin has become smooth and clear, we may promise the best results to our patients. Of course, we may fail by trusting too implicitly to mere drug treatment, and by neglecting other means suggested by general principles and common sense. Good food and mental and bodily rest are of the first importance; and of this I observed a notable example last winter among my skin-patients at St. Mary's Hospital. A young married woman, with extremely bad psoriasis, made not the least improvement with arsenic; and, even when the drain of a suckling child was removed, we were surprised to note that the eruption continued as bad as before. It was then found that she was suffering, in addition, from the depressing influence of a bad husband and insufficient food; and, on being taken into hospital, she very quickly made a complete and satisfactory recovery.

In conclusion, and in briefly summing up, I would suggest the following points as most worthy of your consideration; and, to facilitate discussion, I will throw them together in the form of a few questions.

1. Shall we explain the fact that arsenic is useful in some cases of skin-disease, and inert, or even harmful, in others, by its stimulating action; by its modifying influence over cell-growth; or by its properties as a nerve tonic? Of these, the last appears the most comprehensive and suggestive.
2. In which special cutaneous affections have you derived most aid from arsenic?
3. Is it your impression that arsenic, given along with bromide of potassium to prevent acne, in any degree lessens the controlling influence of the bromide over epilepsy?
4. Which preparation of arsenic do you prefer? Do you agree with me in beginning boldly with large doses; and, like me, do you find it unnecessary to induce physiological effects?
5. What is your experience of the relative frequency, and order of occurrence, of these physiological effects?
6. Do you believe that we may hope to cure skin-disease by arsenic?

BEQUESTS.—Miss Mary Wasey, of Prior's Court, Chieveley, Berks, has bequeathed £3,000 to the Berkshire County Hospital, and £2,000 each to the Bath Hospital for Strangers, the Consumption Hospital, Brompton, and the Cancer Hospital, Brompton. Sir Theodore Brinckman has left £100 to the Windsor Infirmary; and Mr. William Cobbett of Wigmore Street has left £100 to the Surrey County Hospital, and £10 to the Western General Infirmary.

PURPURA HÆMORRHAGICA.*

By J. MAGEE FINNY, M.D. Univ. Dub., F.K.Q.C.P. Ireland,
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CASE I.—Catherine W., a widow, aged 56, was admitted into the City of Dublin Hospital under my care on August 6th, 1877. She had always enjoyed good health, never having had any illness. Her confinements (for she is the mother of four children) were easy, and six years ago her changes stopped gradually without any unpleasant symptom. A year ago, she visited America, and returned in good health. Her diet has been always good, including meat, vegetables, and porter for dinner.

About six weeks before admission, while out walking, she experienced a sensation of cramp and weight in both legs, more particularly in the right. She did not pay it much attention for a fortnight, although the sensation of weight and heaviness in walking continued. She then observed several small specks on the front of the legs. They made their appearance without tingling or any other sensation. At times, they disappeared for a day or two, when new ones would take their place. The chief complaint she then had was a sense of fatigue, so that, though she was up and out every day, she had to lie down several times to rest her legs. The uneasy sensations she attributed to rheumatism, and it was for this supposed disease that she sought relief in the hospital. The symptoms increased in severity within a fortnight of her admission, the pains in her legs and knee-joints and ankles being such as to prevent her from having any rest for some days and nights. She also felt very weak, and was hardly able to stir about the house without assistance. A few days before admission, her feet swelled, and large purple stains, like "bruises", appeared on the knees and ankles and the skin over the tibiae, the right leg being the worst. Her gums bled the day before admission, but she never, before or afterwards, had hæmorrhage from any of the mucous tracts.

In appearance, she was much younger looking than her age, having a great quantity of long brown hair, with but few grey hairs interspersed. Her features were pronounced, her skin of yellowish tinge, teeth sound, but gums and tongue pallid. The pulse was soft and compressible, 94 in the minute. All the organs and viscera in the body seemed normal. The legs and feet presented a very remarkable appearance. They were swollen and cedematous, with large ecchymoses of various shades of colour—in parts purple, in parts black and blue, and again in parts of greenish-yellow and light straw colour. The right knee in particular was marbled with blue and yellow, and to all appearance exhibited the identical characters of a very severe bruise. The left leg was similarly affected, but to a less degree. The thighs, with the exception of a hand's breadth above the patella, were free from all spots, and I may add that no other part of the body and extremities showed any stigmata or vibices. Both ankles and knees were swollen, particularly the right knee, which had all the physical characters of synovial effusion. The surface over the tibiae was spotted with petechiæ, varying in size from a flea-bite to a split pea. The left tibia was distinctly enlarged laterally about two inches below the knee, and was well bowed forwards in this place, having the characters of a large flat node. The knees, ankles, and tibiae were extremely sensitive to touch and to cold, the latter being much complained of, although the temperature of the ward was high. Owing to the state of her legs, the patient was unable to stand or move, and she had to be carried into hospital.

The treatment consisted of rest in the horizontal posture; wrapping the knees in cotton-wool covered with gutta-percha tissue; a diet of beef-tea, milk, and a little wine; and a mixture containing in each dose twenty minims of liquor ferri perchloridi and two grains of sulphate of quinine, three times a day.

The urine was examined a couple of days after admission, and found free from albumen.

August 11th. She had now no pain in the legs and feet; she slept well; her appetite was improved. The swelling was less, but the discoloration, particularly about the knees, was more pronounced. She was ordered to continue the medicine, and allowed chop, buttermilk, and beef-tea. Two lemons were to be used each day.

August 16th. No new spots had appeared. The colour of the vibices and ecchymoses over the knee and ankle had changed to green; all cedema had disappeared, and the effusion into the right knee had almost subsided. She could move her limbs without pain, and, except on standing, the joints were painless. As a diarrhoea had set in since yesterday, the lemons were discontinued and an astringent mixture ordered.

* Read in the Subsection of Dermatology at the Annual Meeting of the British Medical Association in Cork, August 1879.

August 20th. The patient was allowed to get up, and treatment was changed to three-grain doses of reduced iron three times a-day. Her appearance was daily improving, and by the end of August, she was so well as to be able to walk about the ward without pain; and she left hospital for the Convalescent Home on September 2nd.

CASE II.—George W., aged 61, was admitted to the City of Dublin Hospital in October 1876. For the last five years, he was a game-keeper, living in a comfortable lodge; for twenty-six years previously, he had served in the Irish Constabulary. At the time of his discharge from the force, he suffered from varicose veins, but was otherwise healthy; and he remained healthy to about twelve months ago. Since then, owing to failing health, he had been almost unable to do anything. He, at that time, suffered from epistaxis, numbness and coldness of his hands, combined with a stinging and painful sensation, dyspnoea, and palpitation on the slightest exertion. Eleven months ago, he was attacked with severe pains in the calves of the legs, shivering fits, and bleeding from the gums. These symptoms, with the exception of the bleeding from the gums, each recurred at intervals until within a few weeks of his admission. In addition to the foregoing, after being confined to bed, some small red spots made their appearance, changing to black; there were also some patches, of the size of a finger-nail, of similar colour; a few of these spots were on his chest, but along the legs and thighs they were most marked. Three months after the first bleeding from the gums, and whilst he was confined to bed, he was attacked with copious bleeding from the bowels, followed by attacks of syncope, great shortness of breath, and passing delirium. The melaena had recurred several times since. His appetite had always been good, and his diet fairly generous, including vegetables.

On admission, his chief symptom was debility. He was greatly emaciated, and looked much older than he stated himself to be. His face was pallid and yellowish; his lips and gums blanched. The gums were free from sponginess or soreness. The temperature was normal; and the pulse 75 to 80 in the recumbent posture, small and compressible. The heart and lungs seemed healthy. The first cardiac sound was feeble, almost inaudible at the base, and unaccompanied by murmur. A loud venous hum in the neck was audible on sitting up. With the exception of slight increase of the splenic dulness, no evidence of disease of any organ could be discovered. The ankles were oedematous. The urine was free from albumen. About a dozen spots, small, red, slightly raised, ineffaceable by pressure, were seen on the chest and abdomen, and a couple on the legs and forearms; two or three of them were purplish black, of the size of a cherry.

The following was the treatment adopted: $\mathcal{R}$ Quinae sulph. gr. 16; ferri sulphatis siccatae gr. 24; extracti ergotae liquidi $\mathfrak{z}$ ij; acidi sulph. diluti $\mathfrak{z}$ ij; liquoris atropiae sulphatis $\mathfrak{m}$ 12; infusi quassiae ad $\mathfrak{z}$ viii. M. An eighth part three times a-day. The diet to consist of milk, beef-tea, and a little whiskey.

In a week's time, no new spots had appeared, and no hæmorrhage had occurred. The diet was then changed to fresh meat, fresh vegetables, and porter; and the liquor ferri perchloridi in fifteen-minim doses in infusion of quassia was substituted for the former mixture.

It is unnecessary to follow the daily details; suffice it to say that the full diet did not suit his delicate condition, and that, owing to a diarrhoea which was kept in check only by acetate of lead and opium, he was greatly run down during the ensuing fortnight. In spite, however, of this drawback, no hæmorrhage occurred, and he was able to be up each day by the 22nd November, and had resumed meat and vegetable diet; reduced iron being given instead of perchloride of iron. He then steadily gained strength, and left the hospital on November 30th.

CASE III.—The subject of this case was Mr. F. B., aged 22, one of my pupils (who was preparing for his examination for the degree of Bachelor of Medicine in the University of Dublin). This gentleman, who was naturally much interested in the details of his own case, has kindly furnished me, at my request, with the following short statement.

"On Saturday, June 1st, 1878, I first noticed, as I was walking home in the evening, that the calves of my legs felt stiff, without being actually painful. After sitting for some time, I found, on attempting to walk, that they had become so intensely painful that I could scarcely reach my bedroom. I then noticed that my legs above the ankles were slightly swollen, and very sore to the touch. In all others respects I felt perfectly well. I slept well, and the next morning my calves were not nearly so painful nor so tender to the touch; in fact, I felt so much better that I went for a walk of four or five miles into the country. "During the walk, my hands and wrists became greatly swollen and very sore, so much so that I could not close my hands and hold anything in them. On my return home, I experienced a peculiar tingling sensation in my legs; they were also very hot and burning.

"The next morning (June 3rd) I found on getting up that my legs, particularly the left leg, had assumed a dark purple colour; which

completely covered the lower half of both legs, but not extending below a line drawn just above the malleoli. There were also several much smaller spots like the petechiæ of typhus on my thighs. My hands and wrists were still swollen and stiff, but they were not discoloured.

"On Tuesday morning (June 4th), the colour of my legs had changed from a mulberry red purple to a greenish-blue colour, exactly like a common bruise. The swelling of my hands and wrists had almost completely subsided, and had given place to a greenish blue ecchymosis, which was not nearly so dark or so deep a colour as on my legs. The ecchymoses above the wrists were, however, very distinct.

"The next few days, no fresh larger discoloration took place, and the colour of the legs faded gradually, day by day, going through all the stages of a bruise, and by the end of the week had almost gone.

"For three or four days after the first attack, several small extravasations occurred on my legs and arms. Each crop was, however, preceded by the usual soreness of the part attacked.

"I had several attacks of epistaxis without assignable cause during the week; but there was no hæmorrhage from any other of the mucous membranes. My temperature was normal; pulse variable, but always faster than normal.

"I had not been in my usual health for some weeks previous to the actual attack, as I had been reading hard and had not taken sufficient exercise."

The foregoing graphic account needs little addition at my hands. His lodgings were free from damp, and his diet had been always sufficiently generous; but, for a fortnight before he consulted me for the actual attack, he was looking pale and listless. The rate of his pulse during the week he was ill ranged from 110 to 120.

The treatment consisted of a mixture containing spiritus terebinthinæ and fluid extract of ergot. This was commenced a few days after the first appearance of the hæmorrhages on the legs, and continued for four days. As no fresh hæmorrhage occurred, and as he was pale and nervous, quinine and iron were substituted, and he went for change of air to one of the best health-resorts in the neighbourhood of Dublin. This latter remedy did not prove as useful as I expected. He complained of great lassitude and muscular weakness, with loss of appetite. I then gave him a mixture of aromatic spirit of ammonia, fluid extract of cinchona, and tincture of digitalis. This acted well, and in a very short time he was quite himself again. He has had no return of the attack. I may mention that, while the ecchymoses were still visible, this patient presented himself for, and very successfully passed, his examination, which lasted three days.

REMARKS.—The foregoing cases of purpura exemplify various degrees of cutaneous hæmorrhage, rather than different species.

Authors have, indeed, made several divisions of this disease, such as *P. simplex*, *P. senilis*, *P. cachectica*, *P. urticans*, *P. febrilis*, by Willan; *P. simplex* (minima, diffusa, senilis), *P. rheumatica*, and *P. hæmorrhagica*, by Fuchs; and Hebra makes three species, *P. simplex*, *P. peliosis rheumatica* (Schönlein), and *P. hæmorrhagica*; and most English writers adopt two, *P. simplex* and *P. hæmorrhagica*. But I prefer to classify them all (excepting only the purpura of fever) under the common head of *Purpura Hæmorrhagica*; for, the less we look upon disease as exhibited in its various manifestations, and the more we view it in its entirety, modified and changed, it may be, by idiosyncrasies, and differing in its manifestations and in the severity of concomitant symptoms, the more accurate and scientific, I conceive, will be our knowledge.

In purpura, the varieties detailed above depend, not upon any differences in crasis or in the condition of the blood and its relation to the cutaneous capillaries, but upon non-essential concomitants. Thus purpura simplex has neither the painful affections of the joints which characterise peliosis rheumatica, nor the hæmorrhages from the mucous tracts which give the distinctive feature to purpura hæmorrhagica (*morbus maculosus Werthofii*).

The etiology and pathology of purpura are most obscure, and the cases I have detailed do not, I fear, throw any light upon them. All three, differing as they did in age, circumstances of life, and severity of symptoms, presented no points in their history to indicate a common causation.

The condition of the blood in purpura seems also to be an open and unsettled question. Dr. Parkes found the blood of two patients the subjects of the disease to exhibit, in addition to a somewhat diminished proportion of the solid constituents in general, a remarkable increase of iron (quoted by Aitken, *Science and Practice of Medicine*, 6th edit, vol. ii, p. 62). Others state that the blood is less coagulable; and, after death, it has been found fluid in the cavities of the heart. Simon (quoted by Habershon, *vide infra*) noted a marked diminution of the fibrin, while by others this has not been confirmed. Dr. Habershon

(*Guy's Hospital Reports*, vol. iii, p. 90) and Dr. Ogle connect purpura with a diseased condition of the spleen. The cutaneous capillaries have been also examined; and though, in one case, Dr. Tilbury Fox found them undergoing a lardaceous change, the patient had a history of syphilis, and other observers have found nothing wrong with them.

Dr. Richardson has started (*Lancet*, 1874, vol. ii, p. 729) a hypothesis accounting for the varieties of purpura, and has defined three forms, each with a distinct pathology, etiology, and treatment: (a) aqueous; (b) saline; and (c) vascular—referring thereby to the altered condition of the blood, its salts, and the walls of the vessels.

My own view as to the pathology of purpura is that the nervous system is primarily at fault; and that, through the influence of the vaso-motor system, the blood and the capillaries are secondarily affected. The following reasons occur to me as justifying such a conclusion.

1. The majority of the cases of purpura present a history pointing to some nerve-waste, such as over-exercise, fatigue, and mental emotion.

2. The prominent symptom at the onset of the disease, long prior to the occurrence of cutaneous hæmorrhages, throughout its course, and for some time after the cessation of all bleeding, is that of exhaustion, muscular weakness, and fatigue; and this holds good, whether or not the attack be accompanied with pyrexia.

3. The analogy which exists in the acknowledged influence of the sympathetic nerve over cutaneous eruptions, such as erythema and herpes, and the altered pigmentation in pregnancy, leucoderma, and morbus Addisonii.

4. The symmetry of the eruption; the rapid manner in which purpura at times makes its appearance; and the still more remarkable way in which further hæmorrhages are abruptly arrested while the patient is exposed to the same circumstances, hygienic and dietetic, and while the constitution of the blood, it must be acknowledged, can hardly have undergone any alteration.

5. The close connection between disease of the cerebro-spinal centres and purpura, such as was manifested in that malignant purpuric fever (Stokes), or cerebro-spinal fever, which, as an epidemic, visited Dublin in 1868-9, the fell influence of which still clings round our patients, and, complicating nearly every disease of a febrile type, renders prognosis most difficult and treatment too often futile.

In this view of the neurotic origin of purpura, I find I am not quite alone; for, though all the writers on purpura whom I have consulted—and they are not a few—seem never to allude to this possible influence of the sympathetic as a factor of the pathology of this obscure disease, Dr. Andrew Minich (*Philadelphia Medical Times*, 1875, quoted in the *London Medical Record*), dismissing the hypothesis that the disease rests upon a change in the blood, or is due to a fatty degeneration of the capillaries, is of opinion that the real pathology is vaso-motor paralysis.

The cases I have described present some features deserving, I believe, a passing notice. Case I may be termed an extreme instance of the variety termed peliosis rheumatica. In it, not only were rheumatic pains much complained of (as I mentioned, it was for the rheumatism the patient sought relief), but there was great effusion into the right knee, and to a less extent into the left. There was also effusion under the periosteum of the left tibia. That the former was but serum I have little doubt, judging from the rapidity with which it was absorbed; but the latter was, I suspect, blood, since for fully ten days the localised swelling of the left tibia was evident. The extent of the cutaneous hæmorrhage was remarkable; and the appearance of the right leg so closely resembled that of a limb which had been subjected to the worst possible injury short of fracture, that one of my surgical colleagues, who saw it with me, said it might readily pass, in the absence of any history, for a most severe contusion of the leg and knee.

It is further deserving of note, as it proved an exception to the statement of Hebra (page 423), that peliosis rheumatica occurs generally in the strong and healthy, in males between twenty and thirty years old, never in children or aged persons.

Case III belongs to the same category as Case I—namely, the rheumatic variety—and presents the comparatively unusual symptom of the purpura engaging the forearms as well as the legs. Niemeyer, indeed, states that peliosis rheumatica is only met on the lower extremities. It contrasts with Case I, moreover, by the pains being more confined to the muscles. Hence Case III might be considered as purpura with rheumatic pains, and Case I purpura with rheumatism of the joints.

I have described these two cases under the generic term of purpura hæmorrhagica for reasons already given, and because in each case the bleeding was not confined to the cutaneous surface. According to Hebra, the occurrence of hæmorrhage from the mucous tracts marks the difference between purpura simplex and purpura hæmorrhagica. There can, however, be no doubt, looking to the prominence of the symptoms, that they both deserve to be placed under the term purpura rheumatica.

Believing, as I do, in the nervous origin of purpura, I am not prepared to consider this variety, as Wunderlich holds such to be, to be purpura with the rheumatic phenomena grafted on as epiphenomena; nor do I conform to the view ably put forward by Dr. Southey (*Lancet*, 1877, vol. ii, p. 6), that the peliosis rheumatica of Schönlein is nothing but purpura occurring in the persons subjects of chronic nephritis, or in whom, sooner or later, it will be complicated by acute renal affections.

There is much in the published reports on purpura, and our French confrères have contributed largely to the literature on the subject, to justify the views, adopted generally by French writers, that peliosis rheumatica is really a variety of, and is identical with, erythema nodosum. Dr. Robert Liveing (*Lancet*, 1877, vol. ii, p. 307) advocates this theory. I have myself met with several cases where the rheumatic symptoms followed upon the erythema; but Cases I and III cannot, I think, come under such a definition, inasmuch as in each case, and particularly Case I, the rheumatic pains preceded the cutaneous hæmorrhages by a considerable interval—by two weeks in Case I, and two days in Case III.

In conclusion as to treatment, so far as the evidence of the cases I have described warrants one in drawing any inference, I would say that the best results are to be looked for by the employment during the attack of physiological medicines, such as ergot and belladonna, especially ergot; since, by their action on the capillaries through the vaso-motor nerves, vaso-motor spasm is induced, and thus the tendency to transudation of the blood-corpuscles through their walls can best be kept in check. Perchloride of iron certainly did not in my hands produce the good effects that might be expected of it, although it has been strongly recommended by some, including Neumann.

Since I prepared this paper, I find that ergot has produced the best results at the hands of others, and is quoted by Neumann as advocated by Hensch and Bauer. In addition, I would mention that Robert Campbell (*New York Medical Journal*, December 1878) treated cases with it, administered internally; and Dr. Andrew Minich found the profuse bleedings in a case of severe purpura hæmorrhagica to be arrested by the hypodermic injection of ergotin.

In cases of peliosis rheumatica, Neumann lays the greatest stress upon the patient assuming the horizontal posture, and maintaining it for some time after the eruption has disappeared. Niemeyer also approves this treatment. I cannot, however, give much credit to it, since the patient in Case I, who was confined to bed for nearly a fortnight before admission to hospital, showed no evidence that she had derived any benefit therefrom; and the subject of Case III, who never remained in bed more than one day, nor more than three in the house, made a rapid and good recovery, so far as the cutaneous hæmorrhages were concerned.

As soon as the acute symptoms of purpura hæmorrhagica abate, I think the best treatment seems to be that by mineral acids and bark—a treatment as old as the seventeenth century, when it was recommended by Werholf in morbus maculosus. Little good is to be looked for from the antiscorbutic diet, as vegetables and lemon-juice have no influence whatever in purpura.

NOTES ON THE TREATMENT OF RINGWORM.

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FEW cutaneous diseases have been the subject of more numerous and varied methods of treatment than ringworm. Many of these plans are difficult or painful in their application, and all of them frequently fail in cases of difficulty. Impressed with the unsatisfactory nature of the means at our command for combating this disease, I have long been looking for some manageable and reliable mode of procedure. I was early struck with the ready curability of ringworm in infants and when situated on parts of the body unoccupied by a vigorous hair-growth, and I took the difference to be that, in the more hirsute regions, the materies morbi had invaded and found shelter in the deep hair-follicles, etc., and that the difficulty we experience in eradicating it consists in our inability to attack it in its air. Observation has taught me that ringworm, even of the most obstinate character and in hair-clothed parts, rarely if ever survives suppuration in its site. We see this when suppurative inflammation has been set up or kerion has supervened. I think this beneficial action results from the presence of some of the inflammatory products affecting the disease in its deep follicular seats, and perhaps from the admission of some of the remedial agents that may be simultaneously applied.

Keeping these points in view, I have endeavoured artificially to imitate this curative action of nature. In practice, I found it no easy