Singularly enough, in June 1881, L. K. came in again, in a very similar condition; the prostration, however, being scarcely so profound as before.

Her general health had been good until three months previously, when she had frequent bleeding from the nose, and which still continued, lasting three or four hours at a time. She complained of headache, and had not kept any food down for seven weeks. It is needless to detail her symptoms, as it is not pernicious anæmia, but rather the coincident fever, to which I would direct your attention. Suffice it to say that she again presented the typical characters of the disease, but the fever did not run so high as on the previous occasion. Profiting by former experience, the treatment by arsenic was at once commenced, and in the same manner and dose as before; the result was equally satisfactory, for she went out cured in ten weeks.

The same absence of all chest-trouble was as conspicuous as on the former occasion. The temperature did not rise beyond 104°. The quantity of urine represented the fluid taken—chiefly milk, soda-water, and lemonade—for at first no solid food was tolerated; but, towards the end of her stay, the appetite became very ravenous for animal-food.

The emaciation was considerable; but our late house-surgeon, Dr. Uthoff, saw L. K. in February 1883, looking plump and well coloured. The percentage of urea in the case was low, and exactly tallied with the specific gravity, as shown in Table II. The marked increase in the amount of urea towards the ends of the case was no doubt due to the large increase of store-albumen, from the greatly improved appetite and desire for animal-food.

In considering this case, we may, I think, take it for granted that the fever was not the cause of the anæmia, for it is not present in all cases, and it usually occurs late in the disease and precipitates a fatal issue.

Is the fever the direct result of the anæmia? Many considerations favour this view. In cases of chronic starvation, a rapid and decided rise of temperature often occurs in the last few days of life; a like symptom, too, is sometimes present in other forms of anæmia, *i.e.*, leukæmia, chlorosis, etc., and is equally variable in its character. M. Mollière made observations on eight young chlorotic women, who presented no other signs of disease beyond the anæmia for which they were under treatment. The temperature was taken every morning and evening in the rectum, over a period varying from two to fifty-one days, and was found to oscillate between 101.8° and 102.8°; and, what is more to our purpose, the amount of urea eliminated daily was estimated, and found to be normal.

Again, we know that a diminution of the oxygen-carrying hæmoglobin, as a general rule, lowers the temperature of the body; and such is the case usually in this disease; but it is quite conceivable that, in an extremely impoverished condition of the blood, as, for instance, when the red corpuscles are reduced to a fourth, or even a tenth, the nutrition of the nerve-centre, or centres (if such there be), which preside over the regulation of heat, may be so impaired that they no longer exercise effectually their inhibitory power; or, again, that the vital power in the tissues is so lowered that they are unable to resist the action of even the very limited supply of oxygen which is presented to them.

But all this presupposes that fever is due to the oxidation of nitrogenous tissues; and we ought, therefore, to find a corresponding increase in the solids of the urine, and not the reverse, as in the case under consideration. We are, therefore, driven to seek for some other explanation of the febrile state.

In high fever, such as occurred in L. K., the quantity of heat given off is nearly twice as much as the normal, which loss, according to Senator, occurs by radiation and conduction, and, during the crisis, by evaporation. Mollière suggests that the increased heat may be explained by the hypothesis of a combustion, the products of which are not so easily recognised as urea. It may be so, but he offers no proof of it.

We are told by chemists that heat is always set free when chemical compounds of a more stable kind are generated from such as are less stable, even when oxidation has no part in the process; and upon this fact Immermann has built up a theory to account for anæmic fever.

"There is nothing absurd," he says, "in supposing that the molecular structure of the cell is, from a chemical point of view, lax and unstable, requiring (at any rate in the more highly organised animals), a continual restorative activity on the part of the blood, for its maintenance. Should this restorative influence fail, or prove inadequate, owing to some defect in the composition of the nutrient fluid, the complex substance of which the cells consist will spontaneously decay and break up into a number of more stable products."

Thus we have a possible source of increased production of heat in those extreme forms of blood-disease of which pernicious anæmia is the chief type; but what becomes of the nitrogen? Dr. Burdon Sanderson, who kindly suggested the publication of the case, says, in a note to myself: "The pyrexia of your patient I take to be dependent on disorder of that part of the central nervous system which regulates most chemical processes by which heat is produced. The temperature is higher, not because oxidation is taking place at a greater rate, or heat produced at a greater rate, but simply because oxidation and heat-production go on, notwithstanding that the increased temperature of the body ought to have, so to speak, shut the safety-valves." But ought we not to have the *débris* of combustion manifest somewhere, if the fire have gone on burning in excess of the needs of the body from neglect of the regulator? Again, to what was the first rise of temperature due? If not to excessive production, it must be to lessened liberation of heat.

Dr. Anstie, to whose mind a similar difficulty seems to have occurred, offers the suggestion that, in fever, the force which ordinarily becomes latent in tissue-building is set free in the form of heat; thus accounting for its excess independently of the destruction of nitrogenous and fatty tissues. But Dr. Anstie furnishes no data on which he founds this hypothesis.

In the case related, we have two important facts; viz., an enormous decrease in the number of the oxygen-carriers, and an absence of the usual evidence of increased combustion in the urine, which seem wholly irreconcilable with the further fact of the state of decided pyrexia which prevailed in both of L. K.'s illnesses. Seeing, then, that the urine in the present case fails us as an emunctory of the *débris* of combustion, can we find another outlet for it?

The alvine evacuations at once suggest themselves; but for the first four weeks there was seldom a second daily action, and sometimes none at all. And, further, Dr. Parkes has pointed out that the diarrhoea of typhoid fever, even though it does favour the escape of chlorides, is not to any considerable extent the channel for the escape of nitrogen; so that we cannot look for any help in this quarter.

Failing the bowels, we turn to the skin; and here we are met with the fact that in this case all sensible perspiration was arrested; and we can scarcely take for granted that much solid matter passed away with the insensible perspiration, more especially when we recollect that, in the profuse sweating of rheumatic fever, the urine bears unmistakable evidence of its being the natural outlet of febrile *débris*.

The lungs, no doubt, excrete in fever an increased amount of carbonic acid, but, as already noticed, not to such an extent as has been assumed; and we have no evidence that nitrogen finds egress there.

Such are the reflections suggested to me by this interesting case, and I must confess my inability to carry the inquiry further; and shall, therefore, be grateful to any member who will offer any solution of my difficulty as to how the temperature came to rise in L. K.'s case.

ON THE USE OF SULPHIDE OF CALCIUM IN THE TREATMENT OF SCABIES.

Read in the Section of Medicine.

By THOMAS M. DOLAN, M.D., F.R.C.S.Ed.,
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In some of the most recent works on medicine, I find that sulphur-ointment alone is suggested as a remedy for scabies. Thus, in a work which has gained for itself a world-wide reputation, Quain's *Dictionary of Medicine*, the line of treatment is laid down as follows.

"In order to cure an ordinary case of scabies, it is simply necessary that the patient before going to bed should thoroughly apply, and gently rub in, sulphur-ointment to every part of the body, excepting the skin of the face and scalp; and in order to keep the ointment in contact with the skin, he should sleep in his underclothes, such as drawers, jersey, shirt, and gloves, and in the morning take a warm bath. The process should be repeated the next night, after which the ointment should be used every night for a week or ten days to those parts of the body only which are specially attacked."

All who have to deal with scabies—as medical officers of industrial schools and Poor-law medical officers—will agree with me that such a method of treatment is not only unnecessary, but tedious,

disagreeable, and expensive. It would be impossible to apply it in the majority of cases.

In some recent text-books on therapeutics and materia medica, sulphur-ointment is also recognised as the treatment for scabies. In consequence of this, I have been induced to bring the treatment of scabies before the Section, in order to give a practical hint on a line of treatment which recommends itself on the grounds of efficiency, economy, and rapidity of cure. It is not by any means a new method, but it does not appear to me to be sufficiently known or appreciated. It is the treatment by sulphide of calcium. This name is also applied to a powder, the pills of which, in small doses, are very useful in the treatment of boils. The preparation used is in a liquid form, and from its colour, is known in the army and in the Poor-law service as golden lotion. It may be made from the following formula: Flower of sulphur, 100 parts; quicklime, 200 parts; water, 1,000 parts. Boil the whole for some time, stirring occasionally until the substances become incorporated, allow the liquid to cool, and decant into hermetically sealed bottles. It should not be made in a metal vessel; and as in the process of making the smell is not agreeable, care should be taken in this respect.

There is a great difference in the preparations in the market. The best preparations I have met with, I have obtained from Richardson and Son, Leicester; Clarke, Bleasdale, Bell, and Tollington, of York.

The method of application is as follows. The patient is first put into a warm bath; he is then painted with a brush dipped in the solution, and placed in bed, either in blankets or in a flannel night-gown made for the purpose. After a short time, owing to the deposit of the sulphur, the patient's body is almost of the colour of a guinea. The beneficial effects are speedily manifested; the itching ceases, and, as a rule, in simple cases, after another warm bath, the patient may be discharged cured.

In long standing neglected cases, the duration of treatment would be longer, as the scales and crusts produced by itching and neglect have to fall off. Scabies underlies many of the forms of skin-disease seen in Poor-law practice, and this is a practical point to bear in mind. I have used the sulphide of calcium since 1869, when I first entered the Poor-law Medical Service. I have since treated some thousands of cases, using the sulphide alone. My experience enables me to testify the accuracy of Dr. Bourguignon's statement that it is a specific for scabies. It has the following merits: it is a clean application—different in this respect from the sulphur-ointment; it is easy of application, and will penetrate—here again it has an advantage over the sulphur-ointment; it is cheap and speedy in its action; one or two applications will, as a rule, be sufficient; it does not require the destruction of any clothing, nor the complicated process described by Dr. Liveing in Quain's *Dictionary of Medicine*. At the end of the short article from which I have quoted, Dr. Liveing briefly alludes to this method, and says: "This lotion is effective, but it is apt to irritate the skin, and is not so generally useful as the sulphur-ointment." In a small number of cases, the use of this remedy causes roughness of the skin. Its over-use or abuse produces troublesome irritation of the skin. This may be at once remedied: the patient should be ordered a bath of soda and water, when all ill effects will speedily disappear.

The sulphur-ointment should be expunged from our text-books as an obsolete form of treatment. The sulphide of calcium should take its place. I believe it is used in the army in England and on the Continent, and generally throughout the Poor-law Medical Service, so that my testimony is not singular as to its value.

CLEATOR MOOR.—Dr. Eaton records with satisfaction a diminution in the mortality from zymotic causes during 1882, as compared with the previous year, and he thinks that a further decrease may be looked for when the prevalent notion that these diseases are inevitable has been dispelled. Commencing on the fatality from scarlatina, the health-officer observes that all the cases can be accounted for by the opportunities of personal contact between the affected and healthy, a state of things which seems to have been brought about by the inherent carelessness of parents. This disorder caused 7 deaths out of a total of 18 recorded from zymotic causes. The general death-rate represented 14.52 per 1,000, against 13.9 recorded in 1881, an unsatisfactory feature being the increase in the number of deaths of children under five years of age, which numbered 75 against 63 recorded in 1881. There was also a considerable increase in the fatality from chest-complaints, and wasting diseases of infants claimed an unusually large number of victims.

OSTEOTOMY OF THE HIP.

Read in the Section of Surgery.

By C. B. KEETLEY, F.R.C.S.,

Surgeon to the West London Hospital, and to the Surgical Aid Society.

My paper deals with ten¹ osteotomies of the hip, performed on nine patients.

No.	Date.	Name.	Age.	Above or Below the Trochanters.
1	February 1st, 1881	Alice B.	25	above.
2	April 10th, 1881	William M.	14	above.
3	October, 1881	Alice B.	15	above.
4	February 28th, 1882	Joseph S.	15	below.
5	April 4th, 1882	Elizabeth A.	24	above.
6	June 6th, 1882	Alfred J.	9	below.
7	December 12th, 1882	Alice H.	16	above.
8	April 10th, 1882	Joseph S. (again)	16	below.
9	—	Kate C.	6	below.
10	September 13th, 1883	Edith N.	18	above.

Six were done above the trochanter, and four below it. Nine were for ankylosis, one was for an irreducible dislocation. All were done in the West London Hospital, with the chisel and mallet, and under strict Listerian modes of operating and dressing. The dressings were changed, in all the cases but two, at most once or not at all. In the two exceptions, drainage-tubes were used, as I now think, needlessly. Once recurrent hæmorrhage necessitated a renewal of the dressings within three hours. All did well. The constitutional disturbance was surprisingly small.

Each patient was kept in bed six weeks, and allowed to discard crutches and sticks in a few weeks more.

An iodoform pad was usually placed next the wound, then a quantity of packing. Then the ordinary dressing with jaconet was applied, over all, an India-rubber bandage, covering the whole dressing completely.

The effect of the operation may be gathered by contrasting these two diagrams with the figure in the splint (further down in this paper) and from the following statement of facts.

Cases 1, 2, and 5 have now no apparent shortening whatever, and wear symmetrical pairs of boots. Case 7 wears about half an inch of cork sole. Case 3 wears a cork sole, 2 inches at the heel, and $\frac{3}{4}$ inch at the sole. The deformity in her case was originally very great. Case 4, which originally required a cork sole of 7 $\frac{1}{2}$ inches, is now made level by one of 2 $\frac{1}{2}$ inches.

In most of these patients, walking more than a mile used to cause fatigue and pain in the back. All but Case 9 can now walk vigorously. This Case 9 is very exceptional. She, a bright little girl of six years old, had never even stood in her life. She can now walk.

Being almost all young women and youths, they are vastly improved in spirits as well as in health; and, finding themselves no longer cripples, but merely marked by a slight limp, life has now new charms and hopes for them.

With reference to supratrochanteric osteotomy, I wish to draw your attention to certain points of importance, nowhere in surgical literature, to my mind, satisfactorily treated: 1. The place of incision; 2, the size of the osteotomy; 3, the direction; 4, the position of the patient during operation; 5, the method of snapping the early divided bone in two; 6, the way to bring the limb down; 7, the mode of preserving, and even of increasing, the gain as regards position.

Trisect a line joining the anterior superior angle of the great trochanter, and the anterior superior spine of the ilium. Take a point at least half an inch below the junction of its middle and inner thirds. Enter a sharp-pointed steel director at this point, and pass it down to the bone you are about to divide. It will have to go downwards and inwards, but chiefly backwards; how much each way, you must judge by taking carefully the bearings of the great trochanter to the condyles of the femur, by noticing also the fatness or leanness of the patient. Send your knife² along the director (the use of which was first suggested to me by Mr. Willett), and make an incision large enough to admit one finger. Pass in your

¹ I have added a tenth, operated on since the paper was read. This has been done now exactly a month. The wound is healed, and the hip in excellent position; but the patient is still in the double splint.

² In my last case, I only used the knife to incise the skin, and then cut down to the bone with a small pair of ordinary surgical scissors, keeping the point of one blade in the groove of the director. This plan reduced the hæmorrhage almost to nothing. This may seem a trifling consideration; but in these "operations of expediency" one should spare no pains to prevent any, even the slightest, complication, and especially to avoid what may necessitate a change of dressings.