

the urine only on the days on which the patient was seen by me, and the examination made by myself.

Table showing the effect of the treatment on the quantity and specific gravity of the urine, which contained an abundance of phosphates.

1870.		Daily quantity in wine pints.	Specific gravity.
Aug. 3rd	...	6	1040
5th	...	3½	1030
8th	...	4½	1013
10th	...	4½	1013
13th	...	3½	1015
15th	...	4½	1011
18th	...	3½	1016
20th	...	4	1014
23rd	...	5	1010
26th	...	4½	1015
29th	...	5	1010
31st	...	5½	1013
Sept. 3rd	...	3	1019
6th	...	2½	1023
12th	...	3½	1019
19th	...	3	1020
23rd	...	2½	1026
27th	...	4½	1017
30th	...	2¾	1024
Oct. 3rd	...	3½	1024
10th	...	3½	1023
23rd	...	4½	1015
29th	...	5½	1019
Nov. 2nd	...	3½	1024
10th	...	4	1018

The dates of the following report of the general condition of the patient correspond with those of the table above.

Aug. 3rd (the day before the treatment was begun).—The urine was loaded with sugar. There was great thirst, a dry skin, no sleep at night, loss of energy, and great fatigue on exertion.

5th (the day after the commencement of the treatment).—Not much improvement in general symptoms; but the urine was reduced 2½ pints in quantity and ten degrees in specific gravity.

8th.—The quantity of sugar in the urine very much diminished; *thirst gone*; skin moist and perspiring, especially at night. Had slept soundly on the previous night; listlessness much less, and feels as if he had got rid of a load.

10th.—Much less sugar in urine. A great improvement in every respect.

13th.—Sugar reduced to a very small quantity. Thirst quite gone since the 8th. Skin continues moist; sleeps soundly every night; vision improved; pain in the loins gone; feels much more energetic and active; takes a long walk daily without fatigue.

15th.—Only a mere trace of sugar observable in the urine. Continued improvement, especially in strength.

18th.—Sugar totally absent from the urine; still improving in strength and energy; has no desire for more food.

20th.—Sugar continues absent; "feels quite well"; can walk a long distance without fatigue. The daily allowance of skim-milk increased to seven pints.

23rd.—No sugar; keeping quite well. After consulting me on the 20th he walked to Whitburn, and then to Cleadon Station (about five miles), without fatigue.

29th.—No sugar; feels quite well.

31st.—As before.

Sept. 3rd.—As before. Now allowed, in addition to seven pints of skim-milk daily, two pints of the same made into curd by essence of rennet.

6th.—No sugar; quite well. Has taken much exercise daily, and perspires freely. Bowels constipated, and relieved by castor oil.

12th.—No sugar; feeling well and strong. At this period the patient was examined, as well as his urine, by my neighbour, Dr. Charles Natrass, of Sunderland, who considered him cured of the disease. The patient, moreover, declared to Dr. Natrass and myself that, on the 6th of Sept., he had walked from my house by the sea-shore to South Shields, a distance of nearly eight miles, without fatigue, and after having lived on skim-milk solely for forty-one days. He

further declared he could not have done this feat three years previously, when in health and living generously.

15th.—No sugar in the urine; weight 11 st. 10 lb.; health excellent.

The patient had now lived solely on a skim-milk diet for a period of thirty-two days, and on skim-milk and curds solely for an additional twelve days, in all forty-four days (six weeks and two days).

On Sept. 16th he was allowed, as an *addition* to the skim-milk and curd diet, half a pound of mutton chop to dinner.

Sept. 19th.—No sugar in the urine; patient continuing well; takes daily, with the chop, five pints of skim-milk in the liquid form, and from two to three made into curd. The change in the diet diminished the quantity of urine and raised its specific gravity.

23rd.—Urine free from sugar, but containing a deposit of uric acid crystals.

27th.—Patient perfectly well; has been drinking more milk; allowed the green part of cabbage, greens or lettuce to dinner, with butcher meat.

30th.—As before.

Oct. 3rd, 10th, 23rd, and 29th.—No sugar in the urine; health excellent; has been taking much out-door exercise; now allowed Van Abbott's gluten bread to dinner, as an addition to the food last mentioned.

Nov. 2nd and 10th.—No sugar in the urine; health excellent. It was now considered unnecessary to keep a regular record of the case.

Since the above date the patient has been constantly under my observation, and a weekly examination of the urine has been made; and at the period I now write—January, 1871,—nearly seven months after the patient's recovery, the disease has not returned, and the patient is in excellent health, notwithstanding the fact that he has partaken daily of a mixed diet, though carefully regulated to exclude, as far as possible, starch and saccharine matter, and also fat, except to a small amount. The dietary on which he was placed, and on which he is now living, is as follows:—Five to seven pints of skim-milk daily (two or three pints of it converted into curd by essence of rennet); eggs (occasionally a portion of the curd and of the eggs are made into puddings); tea and coffee, with skim-milk; a meal of roast beef or mutton, chop or steak, turkey or chicken, with green vegetables, such as the green part of cabbage, greens, brussels sprouts, lettuce, spinach, &c. Tea has been taken in the evening, and supper has consisted of curds and milk. With this diet the patient is vigorous and quite contented.

(To be concluded.)

REMOVAL OF PATELLA FOR DISLOCATION OF SIXTEEN YEARS' STANDING, WITH CURE.

By ROBERT S. FOWLER,

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THE following case may not be without interest to some of the readers of THE LANCET; and as it shows the advantage of stepping aside from the ordinary routine of practice and of adopting a plan which, though theoretically untenable, may yet be successful in result, I beg to submit it to the attention of the profession.

Mary R—, aged twenty-eight, single, stated that sixteen years ago, while playing upon a swing with some other children, she fell and sustained a dislocation of the patella outwards of the left knee. The pain consequent upon the accident was extreme; and as the surgeon who saw her was unable to replace the bone, splints were applied to the knee, and the patella fixed in its new position by pads. In this position it remained two months, after which it was left alone during six months, when she entered an infirmary at Kingston-on-Thames, where she remained three months, being treated with an ordinary bandage, and permitted to get about at will as she could. During her stay here she had much pain in her knee; for which blisters were applied consecutively to the number of twenty-six. These at first gave great relief, but after a time failed altogether. She afterwards went to Werthing, and was an out-patient of the

dispensary there twelve years; but, desirous of obtaining further relief, she became an in-patient of the Brighton Hospital, and was there four weeks, when sea-bathing and occasional blisters were employed, but without much relief to the pain. Some time afterwards she was admitted into St. Thomas's Hospital, where she underwent a careful examination of the injured part by many of the staff of St. Thomas's and Guy's Hospitals. Here she continued four weeks, and had hoped they would have removed the limb. A model or cast was taken of the knee, and she was sent back to her home at Worthing, and was again on the dispensary. Setons and issues were now tried to relieve the constant wearing pain. During the whole of the time, when able to move, she used crutches.

In 1868 she came to Southampton, and was without treatment of any kind until the pain became so severe as to induce her to seek my advice in January, 1870. At this time the patella was lying on the external condyle of the left femur. It was very movable, but could not be pushed into its natural position, the trochlea being obliterated, or at least undistinguishable. I at once advised her to go to our infirmary, and a consultation was held upon her case. As might be expected, opinions varied with reference to the best means for affording relief. Amputation, resection of the knee, and the letting it alone were all canvassed. My own opinion was that, if the patella could be removed and the limb kept on a straight splint in perfect quietude, the *vis medicatrix naturee* might effect such reparation as to afford hope of a useful limb. I could not induce my valued friends and colleagues to take the same view of this case, and therefore determined that, if my plan should fail, we would resort to one of the alternatives which had been proposed.

In accordance with the impression so strongly fixed in my mind, I proceeded to carry out my purpose; and on Feb. 9th liberated, by subcutaneous incision, as much of the attachments of the patella as could be effected by a tenotomy knife, from the shortness of which it was obviously impossible to complete its entire separation from the surrounding attachments. On Feb. 27th a renewed attempt was made, but as a longer knife with a broader blade (the only instrument I could get) was employed, the detachment, though nearly completed, had left too large a wound to permit further delay, and an incision over the whole length of the patella was immediately made, and the bone rapidly removed. The wound was brought together by hare-lip pins, and covered with carbolic acid dressings, and the limb was then placed upon a straight splint. Not the slightest swelling of the knee followed; the deeper part of the wound was firmly united when the pins were removed, but the external wound healed by granulation.

During the next two months the limb was kept at perfect rest. At length trial was made to raise the leg by the voluntary effort of the patient. This could be partially done at first, and within a short time the improvement became very apparent. On June 1st she left the infirmary with a starch bandage around the knee. She has since daily increased in health and in ability to walk, and has long been free from pain. On Nov. 13th, 1870, she walked, by the aid of crutches, five miles, and stated she could have dispensed with their use. She has already walked ten minutes without crutch or stick, and regrets exceedingly that the operation had not taken place many years before. It is now nine months since the patella was removed, and there is little reason to doubt that within a short time she will be fully able to attend to her ordinary employments.

Remarks.—I had looked long and in vain for some record of a similar case in our surgical works for authority to perform the operation in question; nor am I aware that any such case is published. I certainly should hardly have ventured upon such a proceeding as that which was adopted had it not been that in the year 1867 two cases of ruptured ligamentum patellae fell under my notice, and both had been neglected during many months. In each of these perfect rest, with as good apposition as could be obtained by keeping the limb somewhat elevated, in time effected a cure. These cases were pleaded, in consultation, as a justification for removal of the bone; but they did not satisfy my friends, who naturally urged the difference between these cases and the one in question—viz., that in the latter there would be loss of structure, whilst in the former there was none. If I had again to perform the operation, I would certainly be

provided with a long and narrow blade, and divide subcutaneously the attachments of the patella, and replace it at a distance from the joint; and then, about two or three weeks subsequently, would remove it, pursuing in all other respects the treatment above mentioned.

It is now thirteen months since the operation was performed, and my patient has discontinued the use of both crutch and stick during the past three weeks. She walks two or three miles without pain or any inconvenience, and has resumed her ordinary occupations. A splint of undressed leather is still worn on the ham, as flexion of the knee cannot be borne beyond a certain degree; in time, I hope that this support will be unnecessary, when the new attachments shall have become more consolidated.

Southampton, March, 1871.

REPORT OF
CASES OF SMALL-POX ADMITTED INTO
ST. LUKE'S WORKHOUSE.
BY GEORGE E. YARROW, M.D.

In consequence of the great want of accommodation found to exist, the Board of Guardians of the Holborn Union deemed it advisable to appropriate temporarily the casual wards of St. Luke's Workhouse for the isolation of cases of small-pox occurring in the union. The first case was admitted on Jan. 21st, and the last on March 16th. During the intervening period 126 cases were received; and I now propose to give a summary of these cases, with especial reference to the various degrees of protection afforded by vaccination. In tabulating these cases, with the number of vaccine cicatrices and results, it will be as well to explain that I have classed all on whom I could find no marks as unvaccinated, although some stated they had been so protected.

No. of Cases.	No. of Marks of previous Vaccination.	Confluent.	Semi-confluent.	Distinct.	Died.	Average pr. Cent.
25	Unvaccinated	19	4	2†	12	·48
30	One mark	4	17	9	9	·3
45	Two marks	1	13	31	4§	·08
12	Three marks	2	1	9	1	·08
10	Four marks	0	0	10	0	
2*						
2‡						
126		26	35	61	26	·206

* Sent to Hampstead without having been seen by me.
† When examined, found not to have small-pox.
‡ Both these cases were said to have been vaccinated.
§ Two of these cases were complicated with pneumonia.
|| This patient was a young man suffering severely from secondary syphilis.

During the epidemic I have been repeatedly asked by medical men and others if I do not consider the production of one vaccine vesicle as protective as half a dozen. My answer has been "Undoubtedly not"—with what degree of truth the above table illustrates. It will be seen that not one case was admitted with five vaccine cicatrices. A young woman aged twenty, who had four marks, had only six small-pox pustules on her whole body. Another female, aged twenty-one, with three cicatrices, had not more than twelve pustules. Three pregnant women were admitted. The first, in the eighth month of gestation, was suffering from the semi-confluent form of the disease. She had two good vaccine cicatrices, and was discharged undelivered at the end of three weeks, the child being still vigorous. The second was in the ninth month of pregnancy. She had two cicatrices, and had confluent small-pox. She was delivered of a healthy child on the eighth day of the rash. The infant was at once removed from the wards, and I vaccinated it on the third day. The mother left the workhouse at the expiration of four weeks. The third case was that of a woman in the eighth month, and who was unvaccinated. She was delivered of a dead child three days after admission; the disease assumed the hæmorrhagic form, and she