OBSERVATIONS

SUGGESTED BY MR. NEWNHAM'S "CURSORY REMARKS ON VACCINATION."

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It has been said, that it is as reasonable to look for uniformity of feature in the human countenance, as for uniformity of opinion in the human mind.

There may be, and perhaps there is, artistically considered, a line of beauty by which men judge of perfection in proportion, figure, and physiognomy; but there is a chance if there be not diversity of opinion when the matter is brought into detail. So with respect to truth itself, the foundation of which must be fixed and immutable; yet in our inquiries after it, the same facts give rise to different inferences, and opposite deductions may be drawn from the same data. In science, philosophy, and medicine, how continually is this truth presenting itself. Those things which appeal to our senses, and are obvious, grow settled in our minds and are never the subject of dispute, but that which is speculative, although the facts presented are the same, does nevertheless take a hue according to the kind of mind by which it is investigated. These thoughts have forced themselves upon me by reading Mr. Newnham's remarks on vaccination as published in the last *Journal*.

To that gentleman's opinions on most matters, I am in the habit of paying great deference. I esteem him as a man, and I respect him for that lore which his many published papers evince. There must, however, be a strange obliquity in my powers of apprehension, or a great dissimilarity in the nature of our minds, since the very facts which he adduces in support of his opinions—that there is no need of revaccination—are the facts by which I have come to an opposite conclusion.

Few men in the country have possessed larger opportunities of experimenting (so to speak) with respect to vaccination than myself. Under the old Poor-law, and latterly under the "Vaccination Act," I have been much employed in this department of our profession; nor have I pursued the practice so much with the view to emolument, as from a desire to go deeply into the subject, and to watch both vaccination and revaccination in all their phases.

I have revaccinated, after a lapse of seven years from the primary vaccination, after fourteen years, and after twenty-one years; and according to these different periods I have invariably found a peculiarity with respect to the development of the pustule.

Nothing can be more graphical, nor more beautiful than Mr. Newnham's description, in the thirteenth paragraph of his paper, of the appearance of the pustule after revaccination; but according to my experience, this appearance has reference only to early vaccination—say the seventh or eighth year after the primary vaccination. It is then a "misshapen opacous, or semi-opacous pustule." I agree with him fully, it has no resemblance or apparent affinity to the "pearl in a rose-bud," and those who were ignorant that it was the production of vaccine lymph, would never for a moment entertain the belief that it had anything to do with it. Not so, however, is the appearance of a pustule at the end of fourteen years after the first vaccination: here its character is more defined, imperfect nevertheless, but sufficiently developed to show from whence it came. Here we have transparent lymph, the edges of the pustule are rather jagged and broken, and do not describe a perfect circle; but at the end of twenty-one years the pustule is perfect in all its characters, and so true that I have not hesitated, when pressed, to vaccinate others from it, nor have I found the slightest deterioration in pustules thus produced.

What inference, then, do I draw from these facts? Truly, I am bound to confess the very converse of Mr. Newnham's. I certainly cannot agree with that gentleman's assertion, that "the influence of vaccination cannot be renewed," nor no I adopt revaccination as a mere "test of the efficacy of the first," but as a means to fill that measure of protection which has been lost. The theory I hold is simply this:—I look upon vaccination as filling the system with protection against variolous infection, and compare it to a measure full to the brim. Evaporation in the latter instance reduces the quantity. Time, in the former, deprives the system of a certain modicum of protecting power, and the encroachment of the enemy may be in proportion to the breach made by this loss. Thus at the end of seven years a third of the protection may be gone; at the end of fourteen years two-thirds; and at the end of twenty-one all protection has passed away. In the first instance a resistance equivalent to two portions of a whole, composed of three parts, is presented against the variolous poison; hence the measure of safety at this period. At fourteen the protecting power is reduced to one-third; hence the frequency of attacks of small-pox, then and after mitigated as it is by that portion of protection. All the fatal cases that I have met with have happened after the twenty-first year from the primary vaccination. Now, it strikes me, that the revaccinated pustule indicates the loss in the system as accurately as though it were possible to form an instrument like the saccharometer, or any other instrument for measuring proportions. At seven years, it is a "misshapen opacous or semi-opacous pustule;" as unlike a vaccine pustule as possible. What does this indicate? Simply that the existing protection was adequate, and that development (so to speak) was forbidden or prevented by that power.

And what says practice in small-pox after vaccination? Dr. Gregory says,—"that the protective power of vaccination has rarely been found to fail during the first eight years after the primary vaccination." Nor have I in the whole course of my practice, covering a period of thirty-seven years, irrespective of my opportunities as an apprentice in the large and populous town of Leicester, ever witnessed a case of small-pox after vaccination, excepting after the fourteenth year from the primary vaccination.

As I have before stated, the revaccinated pustule after fourteen years, indicates its character, but in the stead

of a round and beautiful pock, it seems to have a third of it removed, and nearly resembles a crescent. I beg most distinctly to state I am not bending facts to theory. I state what I have witnessed; nor do I believe I am singular in the view which I have taken. On my return from Sheffield, in 1845, after attending the Anniversary of the Provincial Medical and Surgical Association, I had as my travelling companion, that most excellent and enlightened practitioner, Mr. Robt. Ceely, of Aylesbury, than whom, I know no man more conversant with the matter in hand, as his published works testify, and his many interesting experiments prove. The subject of revaccination formed the great topic of our conversation for many miles, and the peculiarity of appearance in revaccinated pustules especially. We were engaged to make drawings of their different appearances at different periods from the primary vaccination. But the distance from our respective dwellings, although in the same county, together with the worry of other practice, and the consequent infrequency of our meeting, has hindered all communications on the subject. I have, however, to thank him for directing my mind into this inquiry, and I almost fancy, for the first suggestion of the theory which I have advanced. I will not, however, be certain on this subject, nor do I wish to implicate him in views which he may not entertain with me. I feel, however, strongly on the subject of revaccination. The small-pox has made fearful ravages lately, especially in large towns, and I think it most incumbent on the profession that they should not be divided in opinion as to the necessity of giving to the public all the protection vaccination affords, even though it may militate against preconceived opinions and notions. It has been a hard thing to make the community favour vaccination at all; but the experience of sixty years, with the present uniform conviction amongst the profession of its protective powers, has inspired confidence. Occasional failures, then, will not destroy that confidence, even though we may say there is a needs-be for a repetition of the agent. Methinks it is far better that the public should be put upon their guard, at the sacrifice of a little trouble, less pain, and no expense, than the glory of Jenner's blessed discovery should be tarnished by frequent failure.

Hospital Reports.

QUEEN'S HOSPITAL, BIRMINGHAM.

Clinical Reports of Surgical Cases under the care of Professor Sands Cox, F.R.S., Senior Surgeon.

Reported by THOMAS WHITTALL, Esq., Resident Medical Officer.

Case VI.—*Medullary Sarcoma.*

Robt. Hanson, aged 69, of a pale complexion, and thin, admitted on October 21st, under the care of Professor Cox, having a large tumour situated on the dorsum of the right hand, immediately over the metacarpal bone of the fourth finger, extending over the same bone of the ring finger, and impinging closely upon that of the middle. It is bounded posteriorly by the styloid process of the ulna. The tumour is about the size of a large egg, somewhat hardened at the base, but of a soft and elastic feel at any other part. It is reddened and ulcerated on the surface, which is surrounded by thick fungous growths, which bleed readily when touched. From the ulcerated surface there is a discharge of thin acrid matter. The tumour is immovable, and firmly adherent to the surrounding tissues. Patient states that he suffers severe burning and throbbing pain, which continues without intermission either night or day. None of the glands of the arm or axilla appear to be enlarged, and the patient complains of no constitutional disturbance, except that arising from the irritation produced by the constant pain in the tumour. He has always enjoyed good health, and is not aware of any of the other branches of his family being affected with a similar disease.

History.—In the autumn of 1844, the patient's attention was first attracted to the seat of the affection, which presented a very small, colourless swelling, something resembling a small boil, soft and elastic, and easily moved about. There was little pain attending it, and the patient did not consider it called for particular attention. After a time the swelling began to enlarge, and continued to do so until it had attained its present size. The pain increased with its size, and it began to ulcerate and fungate upon its surface about eight months ago. It has increased in size more rapidly during the past three months than at any other time. The patient is unable to refer to any exciting cause to account for the appearance of the disease. He states that about twenty years ago he met with an accident, by which the little finger of the affected hand was crushed, and after mortification had set in the finger was amputated between the first phalanx and metacarpal bone. The wound healed favourably, and no further inconvenience was felt from the injury. Ordered to have poultices applied.

October 29th.—The tumour is somewhat larger than when last described.

November 5th.—The tumour is enlarging; the discharge has become more copious.

12th.—The tumour is much enlarged, pain becomes more violent, and the discharges copious in quantity, and of a fœtid odour.

13th.—This morning the tumour was removed by Professor Cox (the artery being compressed by L. Parker, Esq.,) by making a semilunar incision upon the dorsum of the hand, commencing from the styloid process of the radius, and terminating at the extremity of the first phalanx of the ring finger. A second incision was made upon the palmar surface, around the boundary of the tumour; this incision was carried deeply down. The two incisions were connected by dividing the interoseous muscles between the middle and ring finger, and sawing through the carpal bones. The operation was borne well by the patient, and there