day; and it was found that the cervical portion had become more relaxed. The same treatment was continued another day; and then, after the removal of the bags, an attempt was made, without chloroform, to complete the reduction. But, although the fundus went within the os, yet, in consequence of the pain produced and the recession of the parts, I considered it advisable to wait and to apply continuous pressure to the fundus. I therefore adapted a stethoscope, pressing the cup of the chest-end against it. The ear-end, of course, came outside the vulva; upon this a pad was placed, and a T-bandage firmly applied.

On removing the bandage, twenty-four hours afterwards, I found about two inches of the stethoscope within the uterus, firmly held by it; but by pressure with the finger on one side, and by tilting the instrument, it was removed. I found that the fundus had receded, and that the cup of the stethoscope had made its impression on the posterior wall of the uterus, giving somewhat the feeling, at first examination, that the fundus was not quite perfectly restored. However, further examination showed its true nature; and that the cavity of the uterus was forward and hollow upward, as naturally it should be. At the same time, I felt the want of an instrument which should have a convex end, instead of concave, so as to complete the reduction securely. This I have endeavoured to obtain by an easy adaptation to a stethoscope, which is described below.

A dose of ergot was given to promote the contraction of the organ, and the horizontal posture continued for about ten days. At the end of a week, the os and cervix were still somewhat open. An injection of alum-water was employed, and in a few days it was nearly natural, but with some degree of thickening and irregularity. She went out quite well. The parts contracted to nearly their original size.

The remarks made upon the last case are applicable to this. It is surprising that so little discomfort or shock was felt at the time, when we consider the formidable effects usually seen in inversion occurring suddenly immediately after labour. It is highly probable that the change took place slowly—that is, during three or four days. The treatment, which was unsuccessful in the last, was successful in this case; and there seem to be two points worthy of consideration. The first is, that the effect of the air-bags in the vagina is to dilate it, and along with it the os and cervix. This is produced, probably, in part at least, by the stretching of the upper portion. This dilatation of the cervix enables the inverted body of the organ to pass into it; and then pressure of it in an upward direction stretches open the angle of flexion, and thus the way is paved for its slow restoration. As I have above remarked, attempts at sudden restitution are more likely to be unsuccessful; and I think it will be found best always to employ the air-bags for two days first, and then either to give chloroform and reduce, or to employ pressure directly to the fundus for a day. I am inclined to think, from consideration of the habits of the uterus, that the slower mode is the most certain.

I have had some bags constructed by Mr. Arnold, which I think will be more certain of producing the proper dilatation of the vagina and pressure on the fundus. The first to be introduced is a ring-shaped one, about four inches in external diameter, and its opening about two inches; the fundus uteri passing through the ring. This presses on the upper vagina equally all round, and steadies the uterus under the pressure of the second bag, which is a globular one of not too firm walls, and larger than likely to be wanted, about four inches in diameter, so that it may completely fill the whole vagina below the ring-shaped bag. This of course gives support to the first, and also presses directly on the fundus, thus preparing it for the more complete pressure to follow. A T-bandage, with pad externally, should then be applied. The apparatus for pressing on the fundus is a vulcanite stethoscope, having a pear-shaped elastic bag drawn over the thoracic end and tied round the stem tightly. Into the opening at the aural end a stopcock can be screwed, which is attached to the tube of the India-rubber spraying apparatus, by which means the bag at the other end can be distended.

To apply them to a case: The bowels having been previously opened, the ring-pessary, well greased should be passed over the inverted uterus, and then inflated by its tube, which is then tied. The globular ball should then be introduced and inflated. A T-bandage, with a large perineal pad, must then be applied as tightly as can be borne. Twenty-four hours afterwards, these should be removed, and the vagina washed out with warm permanganate of potash lotion, or, at any rate, warm water. The bags are again introduced, and next day removed, with ablutions afterwards. The state of the uterus should then be examined—whether, indeed, it be not restored to its natural state. If it be not, then the thoracic end of the stethoscope should be pressed against the undus as much as possible in coincidence with the axis of the

organ—that is, with the stem pressed back to the posterior fourchette; a pad being placed on the ear-piece outside it. A T-bandage secures constancy of the pressure. This arrangement is removed next day; and then, if the restoration have been accomplished, the end will have entered the cavity of the uterus. But, to secure the complete restoration of every portion, inflate the ball on the end by the apparatus described. If this be left for two or three hours or more, the air can be let out, and the instrument wholly withdrawn. The distension of the ball is intended to distend the uterus enough to allow the end to be drawn out before it can again close on it. It is well to give a dose of opium every eight or twelve hours, to lessen the irritability of the uterus. A simple stethoscope will do, as this case shows; but it appears to me that a more efficient instrument would be found in the one just described.

Should one day's pressure be not sufficient, it should be continued another day more; but in that case it will be well to allow an interval of half an hour to elapse before reapplying it. If that be unsuccessful, it would be well to give chloroform, and to employ manual pressure.

Excellent hints from various authors, on the restoration of the more obstinate cases of this kind, may be found in the *Obstetrical Transactions*.

SOME REMARKS ON THE "VACCINATION TREATMENT" OF SMALL-POX.

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As I have seen about one thousand cases of small-pox during the present epidemic, six hundred of which have been under my own personal care, perhaps I may be allowed to make a few remarks with regard to the "vaccination treatment" of that disease. I have not employed the vaccination treatment, nor do I intend doing so; as, from what little I have seen, and from all I have heard and read, I have formed the opinion that that treatment is likely to prove more injurious than beneficial. From the various papers that have recently appeared by Drs. Furley, Grieve, and others, I consider the balance of evidence to be against the value of vaccination treatment; and I think the cases which I am about to instance tend to strengthen that conclusion. Although Dr. Furley lays great stress upon the employment of considerable quantities of lymph, yet I think it must be admitted that, where the physiological effects of vaccination were produced, as in three of the following cases, if Dr. Furley's treatment be of value, the operation should have produced some favourable effect on the progress of the disease, which, unfortunately, it did not do. I believe I may say that in the following cases the vaccination treatment had an unusually fair chance, inasmuch as in all the treatment was commenced at an earlier period than we are likely to have an opportunity of when we intentionally employ the method. The cases, which are as follows, all occurred in Cork Street Hospital.

CASE I.—A telegraph clerk, aged 18, vaccinated for the first time at the Cowpock Institution in Sackville Street on a Saturday, got symptoms of small-pox on the same evening (pain in the back, shivering, vomiting, etc.) The rash appeared on the following Tuesday, when he was brought to hospital. This case became thoroughly confluent; the eruption went through its usual stages until the ninth day, when the patient died of laryngitis. The vaccine vesicles followed the usual course, neither modifying nor being modified by the small-pox.

CASE II.—A servant girl, aged 20, vaccinated for the first time ten days before admission, had been suffering from small-pox for eight days before admission to hospital. The eruption was confluent on all parts of the body, and of the appearance usually present at that period of the disease. She died on the fourteenth day of the disease. The vaccine vesicle was beginning to scab when the patient was admitted; and the small-pox eruption was especially thick and full round the vaccine vesicle—owing, I have no doubt, to the increased vascularity of the part.

CASE III.—A child, aged 18 months, was vaccinated four days before admission. There was no sign of the vaccination taking. There was a slight eruption of papules on the face. This proved to be a semi-confluent severe case of small-pox. The child recovered. The vaccination never proceeded further than the stage of slight redness.

CASE IV.—A servant girl, aged 18, was vaccinated for the first time six days before admission. The disease ran exactly the same course as in Case II. The duration of the illness was slightly longer, but it terminated fatally on the sixteenth or seventeenth day.

The above cases, so far from encouraging me to vaccinate patients

suffering from small-pox, rather tend to make me doubt the propriety of vaccinating *in the presence* of the disease, lest the patient may unknowingly be undergoing the preliminary stage of incubation for an attack of small-pox, and by vaccination I should only add to his danger.

In considering questions with regard to the treatment of small-pox, I may be saved from repeating the remark often made by others, that the results of the treatment of vaccinated cases must be received with the greatest caution, as vaccination modifies in so many and so various degrees, that we can scarcely form a prognosis concerning a vaccinated case until it is rather far advanced. We find the disease setting in most favourably in vaccinated cases, and suddenly subsiding, leaving the patient convalescent in a week from the commencement of an apparently severe attack.

NOTES ON CONSUMPTION.

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III.—CONSUMPTION AND CONTAGION.

THERE is no question in connexion with phthisis of more practical interest and importance than that of contagion; and there is none other perhaps about which there exists so great a diversity of opinion. It is well known that throughout Italy consumption is classed not only by the public, but also by most physicians, amongst the diseases propagated by contagion; and so greatly dreaded is this supposed character of the disease, that in many parts of Italy the clothes of consumptives are quite as carefully subjected either to destruction or disinfection, as if they had belonged to patients who had been affected with small-pox or scarlet fever. In Germany, the opinions on contagion as regards phthisis are divided; and in France there is an equal want of unanimity upon the point. In our own country, both the medical and general opinions upon the subject are very far from being settled; and whilst some are quite Italian in their views, others—and probably the great majority—believe quite as fully in the non-contagiousness of the disease. We may possibly explain this wide difference of opinion by the recollection that phthisis, notwithstanding all we know of it, is nevertheless so obscure a malady, and arises under such a multitude of very different and apparently opposite conditions, that it must of necessity be frequently associated with circumstances not merely suspicious, but to some minds sufficiently conclusive of a contagious origin.

If the contagion doctrine be correct, not only must it completely revolutionise both the medical and social treatment of phthisis, by rendering the poor consumptive sufferer a being quite as much to be dreaded as was the leper of old, but it must at once crush every hope of our lessening the ravages of so terrible a scourge, by the manifest impossibility of our ever being able to “stamp out” so universally prevalent a morbid element as the tubercular poison. If phthisis be contagious, it is obvious that every consumption hospital must be nothing less than a pest-house; and, instead of lessening disease and suffering, must tend only to their aggravation.

Numerous as have been the believers in the contagiousness of phthisis, no one had fully developed and openly advocated such a doctrine until Dr. William Budd published his startling, but clearly expressed and evidently well matured views upon the subject. In this paper, Dr. Budd expressed his conviction that consumption is a zymotic disease of specific and highly contagious nature, closely allied in such respect to the most contagious diseases with which we are acquainted—viz., scarlatina, typhus, and syphilis, the tubercular material itself being the specific and morbid poison in which the malady originates, and by which it is disseminated through society.

Notwithstanding the high authority under which this view of phthisis is propounded, I most unhesitatingly declare my conviction of its fallacy. Consumption I believe to be a purely constitutional disease, which may be either inherited or acquired, but which, from its very nature, is incapable of being conveyed from one person to another in the ordinary sense of the word contagion. I have, indeed, never met with a case of pulmonary phthisis, however apparently due to a contagious origin, which could not be much more easily and rationally accounted for by generally recognised causes, than by the doctrine of specific and contagious influences. It is quite true that persons previously in fair health are sometimes seen to succumb to phthisis after having attended the last illness of some consumptive relative or friend; but when it is remembered that anything which lowers the physical and nervous powers and depresses the general health is of itself sufficient either to originate phthisis or to develop some hitherto latent tendency to it, we have, I consider, a sufficient explanation of very many such cases, and might

even wonder that they are not more frequently happening. In all instances of phthisis originating under such circumstances, it has long been my habit to make, as far as possible, a complete inquiry into their general, and more especially their family, histories; and I have invariably been led to the conclusion that the long nursing and the close connexion with the disease was at most the *exciting* cause of its subsequent development, the predisposing one having been, for the most part, sufficiently apparent, either in a previously existing hereditary taint, or in some other cause far removed from the idea of contagion. If consumption were “caught” like a zymotic disease, how few in comparison must be the instances of escape to those of infection after contact with it; whilst it must be in the experience of us all that cases, arising even under the most suspicious circumstances as regards contagion, are by no means common, and bear a very small proportion to those in which, after the closest contact with the malady, no ill effects have resulted.

It must nevertheless be admitted that cases now and then occur in which consumption has become developed in the widowers or widows of those who have died of the disease, and under circumstances apparently favouring the doctrine of contagion. I have met with several such instances; but from notes taken at the time, I find the very curious fact that they have chiefly occurred amongst women. Such cases, however, do not, in my opinion, give the least support to the doctrine of contagion, but may be explained in a very different way. The union of husband and wife is not only a religious and social, but also a *physiological* one, as may be easily shown by our daily experience. It has often been remarked, for example, that after a variable period of married intercourse, the one person is seen to resemble the other not merely in manner and habit, but in feature and expression. The offspring, too, of second marriages has been frequently known to resemble both in feature and character the husband of the previous union. So well established, indeed, is this corresponding physiological fact with respect to the lower animals, that it has to be ever borne in mind in their breeding and rearing. If, therefore, certain natural and healthy peculiarities can be imparted from husband to wife, or *vice versa*, there is every reason for concluding that morbid diseases, peculiarities, and tendencies may equally be imparted. But there is another and a less mystical way in which it may fairly be concluded that phthisis may be conveyed from husband to wife. A phthisical father may communicate to the *fetus in utero* a consumptive taint, which may thus be indirectly transmitted to the mother, just as we well know is often the case with secondary syphilis. And it may be due to this circumstance that, as I have already observed, phthisis arising under such apparently contagious conditions is much more frequently met with in women than in men. I believe, therefore, that in one or other of these ways—either by a transmission through the offspring, or by a mysterious and inexplicable connexion between husband and wife—phthisis may sometimes be developed in either of them; and that we need not resort to zymotic influences in explanation of such an occurrence.

Upon the question of contagion, however, practical evidence is of far more value than anything speculative; and as a great experiment upon the zymotic character of phthisis has long been going on at the Consumption Hospital, I shall briefly give the results.

The Consumption Hospital was opened in the year 1846, with ninety beds. Ten years later, it was completed; and since that time, two hundred beds have been constantly occupied. We have lost, during this long period, only one nurse from phthisis; and this was a poor creature whose husband had deserted her, and who had long endured, from other causes also, considerable mental anxiety and physical exhaustion. On the other hand, the services of the nurses generally have been unusually prolonged; and I can myself testify to their general health being, as a rule, remarkably good. Of those *now resident*, two have been at duty in the hospital seventeen years; one has resided thirteen years; one, eleven years; two, ten years; two, nine years; one, seven years; one, four years; two, three years; and four, two years. The two oldest nurses have lately died of old age and general decay, after having long been superannuated; each of these had resided in the hospital for upwards of twenty years.

Of the gallery maids, whose duty it is to be much within the wards in sweeping and scrubbing the floors, only one has been known to have been affected with phthisis; whilst it is obvious that, during so long a period, the numbers of persons thus employed must have been considerable.

Our engineer has seen eighteen years' duty within the hospital, and he is now in good health.

We have had, at different times, three attendants in the *post mortem* room. The first of these is still living, but in infirm health, the result of intemperance; the second left with spinal disease; the third has been in his office for nearly four years, and is in good health.

Of the dispensers, one who kept to his post for above ten years is