

may all tend to promote a highly unfavourable state of the general system. If we add these necessary consequences of intestinal irritation to the weakness of a puerperal female, we shall be at no loss in perceiving how elements of disease can be brought out into active play, which would otherwise probably be dormant. The controlling effects of the puerperal state have caused this disease to resemble the other pyrexiae occurring in the period of childbirth. Dr. Denman observes—"We have been told, that in the dissection of some who are said to have died of puerperal fever, no appearances of inflammation have been discovered, but I should suspect that, in such cases, some important appearances had been overlooked, or that errors had been committed as to the nature of the disease, and probably in its treatment." Persons suffering under intestinal irritation, if properly treated, generally recover.

After a feeling of general indisposition, followed frequently by slight rigors, heat, and perspiration, we find uneasiness or pain of the abdomen, not radiating from the uterus, and not increased, but rather relieved, by pressure. This is accompanied by headache, often at the occiput, thirst frequently very troublesome, slimy creamy state of the tongue, clamminess of the mouth, quick pulse, variations of external heat, offensive breath, acidity, nausea, vomiting, flatulency, painful tormina and diarrhoea, the stools being slimy or watery, and accompanied with much flatus. As the disease advances, the abdominal tenderness increases, with great prostration of strength, mental anxiety, and despondency. As Dr. Locock remarks, the tongue now indicates subacute gastric inflammation. It is sometimes white in the centre, with florid edges and tip, the bright-red angry-looking portion suddenly emerging from the border of the white coat; at other times the tongue is morbidly red all over, shining, glazed, sometimes having a scalded appearance, at other times chapped. In bad cases, aphthous ulcerations line the mouth, accompanied by exhausting diarrhoea and fever, which are soon followed by death.

The lochia and secretion of milk are often much diminished. In the treatment of this disease we must depend chiefly upon the judicious use of opiates, enemata, fomentations, poultices, and the alkalies.

CASE 3.—Mrs. Smith, a delicate woman, aged twenty-four, after her confinement with her second child, had severe after-pains, followed by rigors, feverishness, great mental anxiety and apprehension, furred tongue, irregular and unsatisfactory condition of the bowels, thirst, headache, great abdominal pain, and diminution of the lochia and milk; pulse ninety. She continued in a similar state for several days, with a marked remission of her symptoms in the morning, but towards evening her pain and fever increased considerably, the pulse becoming more frequent, face flushed, headache very severe, occasional shiverings, urine scanty; stools black, liquid, very offensive, and frequent. The diarrhoea resisted opium, mercurials, astringents, and enemata, but finally yielded to the alkalies—magnesia, with the carbonate of potash and aromatic confection.

CASE 4.—Mrs. H—, aged forty, was troubled with diarrhoea for some weeks prior to her accouchement. Her labour was rather severe, but she progressed for some time pretty favourably; the diarrhoea was checked, but not subdued; slight abdominal pain and tenderness came on, but without tympany or diminution either of the lochial or lacteal secretion, the number of evacuations rarely exceeding three in the twenty-four hours. She, however, complained of weakness; towards the afternoon she had slight shiverings, succeeded by heat and perspiration; her anxiety about her condition became evident, and although she sat up, and on one occasion left her room, yet she became gradually more and more enfeebled; at the end of three weeks the diarrhoea returned with increased frequency, and notwithstanding every effort used by myself and the gentleman joined with me in the care of the patient, she died. The body was not examined.

CASE 5.—Mrs. P— has always had very severe labours. Her first child was still-born; her second was delivered by instruments. On the third occasion, the labour was severe and protracted, but the child was expelled by the natural efforts. Similar symptoms to those related above soon manifested themselves. She never regained her strength, having retired into the country for the benefit of change of air. She endeavoured, at the end of two months, to walk up stairs; she became exhausted with the effort, gave a sudden scream, and died.

I have, in several cases of puerperal diarrhoea, recommended the acetate of lead, on Dr. Okes' suggestion, and have thought it of service.

Milk fever is a fever depending entirely upon the puerperal condition and the state of the lacteal secretion. It is generally a very

slight affection, but when severe may become complicated with cerebral affections, delirium, and meningitis. When this is the case, it requires the most prompt and decisive treatment necessary for the complications with which it is connected. As this fever is not usually considered as a form of puerperal fever, I shall not now enlarge upon it.

Dr. Butter's cases, at Derby, 1765—1775, were evidently more allied to intestinal irritation than to any other cause. He states that bleeding to three ounces was sufficient, and that a combination of rhubarb and aromatic confection, given until the faeces assumed a healthy appearance, constituted the best treatment.

Hitherto we have considered the combinations of the puerperal state with inflammatory fever, and have discovered that the prevalence of those symptoms common to the puerperal condition, gives a peculiar character to its concurrent diseases. There are no symptoms or consequences connected with these affections which this simple theory cannot explain; and if ultimately found to be correct, the simplification of practice and a more correct knowledge of disease must tend most materially to public as well as professional advantage. The principles of practice are therefore simple, and to be guided and restrained, or made more energetic, according to the relative weight of the considerations whose comparative value and importance we are called upon to decide.

June, 1845.

(To be continued.)

PERFORATION OF A TUBERCULOUS EXCAVATION THROUGH THE WALLS OF THE CHEST.

By J. S. CAMPBELL, Esq. M.D., Weymouth Street.

FROM rarely seeing the *Medical Gazette*, my attention was only recently directed to a case of the above-named operation, reported by Dr. Hastings, (of London,) in the number of that journal for the 20th of December in the preceding year. Whatever be the results of that case, or whatever views may be held as to the judgment which led to the proceeding, it must be admitted by all, that the operation is one of grave importance, and, with your permission, I feel desirous of saying a few words on the theory and practice of thoracic openings generally, as well as of their applicability to tuberculous excavations.

That openings made into the chest, from accident or design, in healthy animals, are not necessarily fatal, is a fact long admitted, but never perhaps better shown, experimentally, than by Van Swieten, and reported in his *Commentaries*.*

The continuance of life under such circumstances is sufficiently explicable. The lung collapses from atmospheric pressure exerted on its superficies, and if the opening be on one side alone, the production of arterial blood still proceeds on the other, with sufficient energy to supply, for a time, the wants of the system. If, again, the opening be made on both sides, then the immediate extinction or continuance of life depends on the relative area of both openings, as compared with that of the glottis. The experiments on which this conclusion rests are briefly stated in the pages of *THE LANCET*, (March 6th, 1830.)

So far, then, we are led, by an acquaintance with such facts, to conclude that, *per se*, there is no necessary fatality in admitting air into the chest, and consequently found on this the admissibility of those operations frequently performed in its diseased conditions.

Such conditions may be arranged under three heads:—

1. Effusion of serum into the thoracic cavity as a sequel of pleural inflammation, the lungs remaining sound.
2. Effusion of a fluid more or less purulent, which generally, if not always, implies the existence of some severe anterior disease in the substance of the lung itself.
3. The existence of a cavity resulting from tuberculous disease—the immediate object of this paper.

As regards the first two of these, the principle on which thoracic paracentesis rests is similar, the only difference being, the nature of the fluid sought to be evacuated. In either instance, the lung is compressed, and breathing impeded by the weight of a fluid which acts on its exterior, and the legitimate object of the operation is to evacuate, by mechanical means, what we find the vital act of absorption unable to remove, in the hope that the substituted air will be more readily disposed of by absorption than the denser liquid. In all such cases, the judgment of the practitioner is best shown, and the probable result best inferred, by duly considering the cause on which effusion primarily depends. If it result from simple pleurisy—not of very rare occurrence—or from simple abscess of the lung, uncomplicated with tuberculous deposit—a condition much less usually met with—then there appears a fair prospect of ultimate success; not,

* Vide vol. ii. of English translation, pp. 105-110, section 170.

be it remembered, because we cure the disease, but because we get rid, for the time, of an obstructing secondary evil, and are hence permitted an opportunity of combatting the primary malady by such measures as we deem fitting.

I now come to the intention of the operation proposed by Dr. Hastings, and executed by his friend—an intention which differs essentially from that proposed in two of the cases before named. In them, fluid is sought to be withdrawn from the cavity of the chest; in this, from a cavity situated in the substance of the lung itself, with a view of removing air which distends it, and prevents the approximation, and, consequently, the adhesion, of its sides.

The first serious practical difficulty which here presents itself is that of diagnosis; for it is obvious that, unless the parietes of the cavity adhere firmly to the walls of the chest, great hazard must arise from rashly penetrating to its interior; and yet it appears to me that the most dextrous stethoscopist or percussor cannot, with precision, determine the existence of an adherent cavity; to ascertain the presence of a cavity even is not quite so easy as is often supposed; but here we have not only to do this, but also to ascertain that such excavation is throughout adherent. On such grounds alone the operation is one which should not be rashly undertaken.

But I will suppose a case—and such appears to be that of Dr. Hastings—in which the diagnosis was perfect—where the walls of the cavity did adhere to those of the chest, its interior containing air only. If the operation be ever admissible, it is in such a case; but even then I should be disposed to question the principle on which it rests. A few words will explain my meaning.

The cavity is presumed to contain air, admitted, of course, through the trachea; this distends it, and renders approximation of its sides impossible. To remove this, a new opening is artificially made into its interior, with the expectation that air therein contained will be finally evacuated.

When this theory is examined on physical principles, its fallacy seems to me strongly marked. All know that the atmosphere presses with an average weight of fifteen pounds on each square inch of surface, and that it is by the influence of such pressure that air permeates the lungs, when, by an inspiratory muscular effort, their containing cavity is augmented in capacity. Now, the very same amount of pressure which, acting through the windpipe, distends the lungs, or the abnormal excavation with air, equally acts through an opening artificially made, and the result is, that the alternation of ingress and emission connected with the antagonistic acts of inspiration and expiration, go on as in the natural state, the only difference being, that according to the relative area of the external opening, as contrasted with the glottis, so will be the amount of air which enters by them respectively.

If I could imagine that any great advantage is attainable in phthisis by approximating the sides of a tuberculous cavity, I should be disposed to think that the plan long ago proposed by Dr. Ramadge, and referred to by Dr. Herbert, in your number for the 18th of January last, was the more likely to succeed. By forcibly distending such portions of the lung as are still in a normal state, it is not impossible that a pressure might be exerted on the cavity adequate to counterbalance the atmospheric pressure which distends it, thus placing its internal surfaces in closer vicinity, at least, if not in contact. But I much fear that the plan is practically but seldom crowned with success; at all events, it has fallen to my lot to see numerous cases which had been treated by the forcible inspiration suggested by Dr. Ramadge, and in no instance did any good results follow. I am bound, however, to say, that all were cases of consumption very far advanced; cases in which small hope of success under any method of treatment could have been rationally indulged.

Your correspondent, Dr. Herbert, who appears as the advocate of Dr. Ramadge's practice, and an opponent of Dr. Hastings's operation, states that within the last "eighteen months" he has been present at "seven such operations performed under Dr. Ramadge's directions." As these words occur when he is commenting on the undue severity used in the operation immediately under review, a little obscurity arises as to whether Dr. Ramadge's cases involved the opening of tuberculous cavities, or simply puncture of the chest, with other intentions. It would be satisfactory to have this obscurity removed, and to know, if of the first kind, what were the results.

But admitting the expediency of operating in certain cases, one thing at least is clear, that even by success we can only hope to get rid of a secondary, though, without doubt, important complication. Persons who die of phthisis do not die because they have one or more empty cavities in the lungs. We appear now to have pretty certain evidence of the fact, that in numerous instances—either from some unknown change in the constitution,

dependent on natural causes, or possibly from the influence of remedial means employed—tuberculous cavities often tend to cicatrize; and, provided always that the diathesis is removed, and the formation of new cavities consequently prevented, there appears to me reasonable evidence that consumption is, in one or other way, not unfrequently cured; using that term in a restricted sense.

Locally considered, phthisis is a progressive malady, and men seem now generally agreed that it originates in some derangement of the assimilative function, which reacts on the lungs, and there lays the foundation of that condition with which its more prominent symptoms are connected; but we know that a very large amount of the lungs may be rendered useless by other causes, without this leading to a fatal issue, and we hence legitimately may conclude, that to counteract at its source the constitutional derangement on which the local affection depends, is the proper object of inquiry with all who take an interest in this most fatal and yet most interesting disease.

Whether such an end is best attained by naphtha, by alkalies, by climate, counter-irritation, or a score of other plans hitherto advanced, it remains for future investigation to determine; but of one thing we may, I think, be pretty well convinced, that the healing of an excavation, even when accomplished, is not a cure of the malady, and I consequently object to Dr. Hastings's operation, not only because it is in itself hazardous and uncertain, but because, in its best aspect, it deals with an effect, and not a cause.

March 17th, 1845.

A NEW MODE OF APPLYING LIGATURES TO NÆVI.

By J. C. CHRISTOPHERS, Esq. Surgeon, London.

THE written description of any mechanical performance necessarily makes it appear more or less intricate; nor do diagrams, wherein the tying of knots is depicted, go far to illustrate the same; but any one once witnessing the operation I am about to describe, (performed on a piece of cloth,) would be able, I feel confident, to apply it on the living body.

The operation itself is very simple, requiring only a needle and a piece of waxed silk for its performance; it is very easily executed, and may be divided into two stages—1st, That in which the ligature is passed; 2ndly, That in which the ligature is tightened; and may be described as follows:—

1st. Take a piece of strong silk, or a ligature, well waxed, and three quarters of a yard in length; thread a curved needle with the same, leaving the ends equal,* and pass it, double, under the centre of the part required to be removed; this done, cut the ligature in the middle, leaving the needle attached to the inferior portion; take the same, and pass it through the skin immediately below the part to be strangulated. Thread the needle with the superior portion of the ligature, and pass it through the skin in an opposite direction, immediately above the part to be strangulated. Remove the needle.

2ndly. Tie as tightly as possible the two ends of the loop that includes the inferior half of the tumour, and strangulate that portion of the part to be removed. Tie, in the same manner, the other two ends of the loop, including the superior half of the tumour, and strangulate that portion of the part to be removed. The four ends of the ligature remaining are now to be tied tightly and alternately the one to the other, and the operation is completed. The whole mass to be removed being thus entirely enclosed in a double circle by the ligature both from within and without, must be effectually strangulated.

The difficulties attending the following case, led to the invention of the method described:—

CASE.—The child of Mrs. G—, residing in Henrietta street, aged three months, presented a nævus, about the size of a nut, situated directly opposite to, and closely bordering on, the internal canthus of the right eye, extending thence upwards towards the eyebrow; and inwards towards, and reposing on, the nose, reaching nearly to the median line; it was very florid, and about to ulcerate.

One glance at the situation of this tumour will show how inapplicable the methods usually adopted would have been. The child was not weaned, therefore the method by needles would have been most inconvenient both to the mother and to the infant, to say nothing of the difficulty to apply them in that situation. Excision would have been no less so, as the hæmorrhage would have been considerable, and in a situation most difficult to control; the vicinity to the eye would greatly impede the necessary compression. To obviate these inconveniences, I

* It facilitates the application to dye one-half of the ligature in ink, the more readily to distinguish the ends after it is divided.