

probabilities and possibilities have entered largely into the history of this accident, as we find it from the pen and experience of some closely observing accoucheurs.

(To be continued.)

Selected Papers.

On the Hypodermic Use of Morphia in Diseases of the Heart and Great Vessels.

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From the Practitioner.—(Concluded).

It is surprising how little the morphia has affected the head in the multitudes of cases in which I have tried it. The condition of the brain in heart disease is often, no doubt, anæmic, and some of the restlessness of the patient, and some of the heart disorder, may at times be due to cerebral anæmia. In such cases one might expect the morphia to calm by bringing about the sleep, or rather the stupor, of cerebral congestion; but this explanation is insufficient. On the contrary, in aortic disease with marked symptoms of encephalic anæmia I have seen less good result from the hypodermic use of morphia than in heart cases of other kinds. But in cases of mitral regurgitation, when the head is full of venous blood, and distress and stupor seem striving together, then I have found great benefit from the injection, for it stills the distress in the chest, and by staying the tumult of the heart it seems to allow the sinuses to empty themselves, and to allow of the establishment of a true soporific anæmia. I think, moreover, that the un-wonted blessing of peace brought by the drug so tranquillizes the system, that even those persons find solace and rest from its use, when labouring under heart disease, in whom, under other circumstances, morphia would rather annoy the medulla than tranquillize the cerebrum. I scarcely ever remember that morphia caused disturbance of the stomach or other inconvenience in the cases I am describing. As in cases of severe pain, so it seems that in cardiac disturbance the intolerable distress "carries off" the troublesome qualities of the drug. Its effects, again, are not merely comforting, but are curative so far as such cases are to be cured. An injection of morphia three or four times a week by tranquillizing the heart and allowing the circulation to recover its freedom, sets free also the organs which are oppressed, and the system can

once more find something like its balance.* Thus relieved, the patient may with incessant care enjoy some respite from his malady, and the occasional use of morphia may put off the day of its return. All this bears very closely on the difficult question, How is it that a man having a given lesion of the heart goes on sometimes for a year or two without an "attack" of general suffering, and after recovering from this may go on for a longer or shorter while before the "attack" is repeated, the heart lesion remaining always the same? There seems to be a gradual accumulation of deficient work, which does not throw the patient over until it reaches a certain amount. Gradually and indirectly the morphia injection does much to restore balance of function; directly and immediately it seems to affect the chest almost alone. The face generally becomes less turgid and its expression calmer. The heart, which for days had been thumping out of all rhythm, or striving against an unequal weight of blood, becomes tranquil and rhythmical; and this whether it be a direct result of the morphia or not, is the chief one, and that upon which the rest seems to hang. More haste, worse speed, is as true of heart work as of any other, and it seems clear that the hurried labour of the overtaxed heart is not compensatory, but is mere blindness and bewilderment. After injection the insufferable precordial distress ceases, and the heart gaining time and rhythm, gains power. The effect upon the pulmonary circulation is very striking, the congestion and secretion of the lungs lessened, to the unspeakable solace of the patient.† The quick, shallow, anxious "cardiac dyspnoea" gives way to a deeper, slower, and easier movement; the cough falls, not from want of sensibility, but from relief of oppression; the overweight of blood oozes slowly onwards, and the patient, who has been tossing in misery, feels the first tranquil sleep he has enjoyed for weeks. On awaking he is conscious of an ease he has not felt for long, and the good effects are often as well marked and sometimes better marked the second night than the first, so that in ordinary cases an injection every alternate night is sufficient. The injection has little or no direct effect upon the anasarca or the urinary secretion, but only gives occasion for their relief by other means. The venæ cavæ are no doubt unloaded, but the state of the kidneys and legs is too confirmed for immediate change.

* I should perhaps make a point of saying that in using the morphia I do not wish to overlook other remedies which still have their place.

† It is the administration of "an opiate" during the clogged state of the lungs which will excite the most serious doubt. We cannot, however, reason in the least from morphia by the mouth to morphia by the skin; the remedies are quite distinct in their results. I have never dared to inject morphia in bronchitis, but shall not wonder if it is done before long.