THE ASPIRATOR IN PLEURAL EFFUSION.[1]

BOSTON, *November* 29, 1884.

MR. EDITOR, — In the record of the First Annual Meeting of the New York State Medical Association (*Boston Medical and Surgical Journal*, November 27, 1884) I find that Dr. E. D. Ferguson, of Rensselaer County, presented a paper on the Use of the Aspirator in Hydrothorax. He laid down the following propositions: —

First. "Owing to the dangerous and often fatal results which he had seen produced by the aspirator by causing pyothorax, he now never resorted to it except when dyspnœa or other serious symptoms supervened."

Second. "Dr. Bowditch had maintained that the aspiration should be continued until the patient complained of pain in the epigastrium or dyspnœa, but he (Dr. Ferguson) thought that it was much better that it should be stopped before this point was reached, as the occurrence of these signs indicated a more or less grave condition already.

Third. "He would advise that more than a pint of fluid, at the outside, should never be withdrawn at one time.

Fourth. "In the pelvic cavity much evil had resulted also from the too free use of the aspirator, and, on the whole, he thought the instrument had, perhaps, been productive of more harm than good."

Permit me to take issue upon these points, which, from the report in the JOURNAL, were all that Dr. Ferguson presented in his paper.

First. Since 1850, when I first began to operate with Dr. Wyman's fine trocar and suction pump, I have

[1] Reprinted from the Boston Medical and Surgical Journal of December 11, 1884.

had under my care two hundred and fifty-three patients with pleural effusions, which required surgical interference to remove the fluid. Three hundred and ninety-five operations were done. The vast majority of them have been that of suction, as above named. In a certain number a permanent opening became necessary. In one, after four years of suffering from a fistulous opening into the chest, Estlander's operation of removal of portions of two ribs was performed with perfect success and complete restoration to health. During this period of thirty-four years I have never met with "dangerous or fatal results consequent on the operation of suction." I have seen a case, under the care of another, in which a permanent opening was made *under etherization*, and in this case the pulse failed twice during the operation; but full recovery to health was the final result. I believe the patient would have died if the opening had not been made.

Second. Doubtless I should have met often "with dangerous and fatal results" if I had pursued the course which Dr. Ferguson says that I recommend. Unfortunately, Dr. F.'s assertion is incorrect. I do not maintain that we must draw until pain or dyspnœa occur but precisely the reverse, as my patients and students would admit. My method is as follows: I use, as at first, the finest trocar to which I have applied a suction pump. I prefer this apparatus to any "aspirator' with vacuum previously arranged, as in Dieulafoy's or any other method. I think I can by the pump, which I hold in my hand, more easily judge of the amount of force needed to extract the fluid, and can if I wish *instantly* stop all traction, whereas that knowledge is not given by the "vacuum" instruments.

Having pierced the thorax and arranged the suction, I say to the patient, "Tell me if you feel the *least* discomfort in any way, either pain or stricture or desire to cough. Tell me instantly." If he so tells me, I wait a few moments and perhaps cautiously draw anew or I

remove the trocar from the chest. I impress strongly upon the patient's mind that it is for his good to let me know the first moment of the *least discomfort.* During the operation I frequently repeat the question. By proceeding thus prudently and slowly I *never allow severe pain or dyspnœa to ensue,* and I do not recollect to have ever had "dangerous symptoms" occur.

Third. Dr. Ferguson would never take more than a pint of fluid at an operation. He would also wait before tapping "until dyspnœa or other serious symptoms" occur. Pray what would he advise in cases of *latent* effusions, when one side of the chest may be full of fluid, and the physical signs alone indicate the condition of things? His rule of delay till dangerous symptoms set in might lead either to sudden death from obstruction of the heart or to long disease, terminating fatally. Such cases I saw repeatedly before 1850. I begged medical men to operate in the cases under their charge, and they would not, leaving death as the result.

In case I find now a chest full or nearly full of fluid, even if there be no severe dyspnœa, if the patient has been ill a month or six weeks I advise tapping as the *first* remedy. I afterwards use the common remedies, internal and external, for pleurisy. Having commenced the aspiration I draw from one to four, or once even five, pints, always watching, especially after two pints have been drawn, the condition of the patient, as above named. It would seem to me wrong to limit myself to one pint when I could by care draw more, and thus save a second operation.

Fourth. Dr. Ferguson said also that the instrument had been used much too freely in the pelvic cavity, and had done much evil there. I am not sure that I understand aright when I say that his words seem to intimate that "on the whole" the aspirator as generally used has done "more harm than good" wherever used. If he means that assertion as applicable to the thorax,

I deny it wholly. It has been of infinite service to mankind, and will ever continue to be such. It will eventually save lives which, without it, will be lost. All that is required is that due care govern the use of it.

Respectfully yours,

HENRY I. BOWDITCH, M. D.