

where there was marked dulness from the presence of fluid.

Again there was the case of the woman McK—, in No. 15 ward, who was admitted with pleuritic effusion, and was tapped several times. Before the first tapping you may recollect that there was distinct vocal vibration at the lower and back part of the affected side of the chest. I removed twenty-five ounces of fluid. Strange to say, we never had any return of the vibration throughout the progress of the case. The fluid collected and re-collected, and we removed it on three or four occasions.

I think that possibly we may account for the persistence of vocal fremitus in some of these cases of pleuritic effusion by the existence of adhesions of the lung to some parts of the chest-wall.

Whenever pleuritic effusion is great there is displacement of viscera. The heart is often found bearing to the right of the sternum when the effusion is on the left side, and this displacement is great where the effusion has been rapid. There are also displacements from the diaphragm being pushed down. But, independently of the fact that displacements may be due to the presence of solid matter in the chest, it frequently happens that although there is a good deal of fluid in the pleura, there is but little visceral displacement. In the first place the heart may be so connected with the chest-walls by adhesion that it cannot be displaced except to a slight extent; and further, in the more chronic cases, the lung yields to the pressure of the fluid, collapses, and thus leaves a large space for the fluid. The displacement of viscera may therefore be much less than you would expect from the quantity of fluid, which after operation, you find has existed.

Again, you must not always expect to meet with any decided increase in the size of the affected side, or a bulging of the intercostal spaces. Setting aside that the fact that measurements are not always trustworthy, it is undoubtedly true that in adults effusion may be very great and yet there may be no increase, as shown by the tape, in the size of the affected side, as compared with the opposite one. In the more yielding chests of children it is otherwise, and a notable increase is more frequently met with. Doubtless in most cases, if you watch them from the beginning, having taken the measurement before effusion you will find an increase in the size of the affected side. But what I wish to impress on you is this, that in the more chronic cases the side of the effusion often measures less than the opposite side. As an instance, there is the case which you have seen in No. 10 ward. In this man, who was the subject of extensive empyema of the left side, the measurements before tapping were as follows: Right side, 1 ft. 5½ in.; left side, 1 ft. 5 in. We drew off 50 oz. of pus from the pleural cavity.

Now it is very probable that the measurement of the left side, were greater than in health, before the effusion took place; but the left lung being crippled, the right had taken on increased action, and had distended that side of the chest beyond the normal.

Further, although the intercostal spaces are at times altered in their appearance, becoming more or less convex, yet extensive effusion may exist in adults without any such change taking place.

It is scarcely necessary for me to allude to *ægophony* as a sign of pleuritic effusion. I look upon it as a mere fancy sign, being generally absent where there is any difficulty of diagnosis.

I have thus endeavoured to deal with some of the difficulties which you meet with in the diagnosis of pleuritic effusion, and whilst I admit that in the majority of cases the diagnosis is easy, I venture to say that in others it is very difficult; indeed, I think in some instances it is impossible to say positively whether fluid is present without making an exploratory puncture, and in all cases of doubt, where the propriety of tapping the chest is in question, no decided opinion should be pronounced until an aspirator-tube has been introduced. But I must say a few words about this preliminary exploration. Simple as it may appear, easily as it is accomplished, and usually attended in hospital practice with but little trouble, it is far less simple amongst private patients. It becomes, in fact, magnified into an "operation," and should no fluid be withdrawn the confidence of the patient is not increased in the Physician. Therefore it is well to weigh carefully every feature of a case before introducing even the finest canula. I believe, however, that no harm is done by the use of these tubes, even if a solid lung, or solid tumour, or even a healthy viscus is punctured. You need not therefore have any apprehension on that score.

But I must tell you that when there is a good deal of fluid in the pleura, one or even two punctures may fail to withdraw any of it. You may possibly punctuate at a spot where there are adhesions; and, again, you may find that even when there is a pure serous effusion, such as you would think ought to flow through a canula, nothing will follow the introduction of the tube unless the exhausting syringe is used. I had under my care a man who, having had empyema of the right side had symptoms of pleurisy on the left. On examination I diagnosed the existence of effusion. I introduced a fine aspirator-canula, and I felt that I had pressed the instrument into a cavity, but no fluid oozed out. I withdrew the canula to see if it was plugged, but it was free. I re-introduced it, but still there was no fluid. The aspirator was applied, and twenty ounces of clear serum withdrawn. Sometimes from