

the inferior limit of the sound lung behind, and tap two inches higher than this on the pleuritic side, at a point in a line let fall perpendicularly from the angle of the scapula. Push in the intercostal space here with the point of the finger and plunge the trocar quickly in at the depressed part; be sure to puncture rapidly and to a sufficient depth, or you may be balked by the false membranes occluding the canula.

"It will sometimes happen that with the greatest care and trouble we are unable to get a flow of fluid at the point where we first puncture; it is then our duty to try elsewhere, for our failure may be owing to unusual thickness of the false membranes in the lowest inch or two of the pleural cavity. We thereupon repeat the puncture a little higher up, and further towards the axillary line, and here we perhaps find fluid; at any rate, no harm has been done by the two punctures.

"The circumstances under which paracentesis ought to be performed for pleurisy are the following:

"1. In all cases of pleurisy, at whatever date, where the fluid is so copious as to fill one pleura, and begins to compress the lung of the other side; for in all such cases there is the possibility of sudden and fatal orthopnoea.

"2. In all cases of double pleurisy when the total fluid may be said to occupy a space equal to half the united dimensions of the two pleural cavities.

"3. In all cases where, the effusion being large, there have been one or more *fits* of orthopnoea.

"4. In all cases where the contained fluid can be suspected to be pus, and exploratory puncture must be made; if purulent, the fluid must be let out.

"5. In all cases where a pleuritic effusion, occupying as much as half of one pleural cavity, has existed so long as one month, and shows no sign of progressive absorption.

"The *limits* of the operation form an important question. Formerly one great error seems to have been, that operators were often too anxious to extract the whole of the fluid; in this way they often protracted the operation to a mischievous extent, and gave abundant opportunity for that very entrance of air to the pleura which was theoretically so much to be dreaded. Among the latest writers, Bowditch and Murchison have most authoritatively shown that it is neither necessary nor useful to extract the whole of the fluid, and that the removal of just so much as may be necessary to relieve substantially the mechanical distress, will in most cases give the necessary spur to the natural process of absorption, by means of which the rest of the fluid will be taken up. One rule seems absolute; the withdrawal of fluid must be arrested the moment that the patient begins to complain of constricting pain in the chest or epigastrium. Even in the case of purulent effusion there can be little doubt that absorption often takes place, though unquestionably there is here a danger that concrete cheesy matter may be left unabsorbed, and under unfavorable circumstances may become the starting-point of tubercular infection.

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"It remains to say a few words on the treatment

of those least fortunate cases where, from one cause or another, a purulent fluid forms and re-forms with great rapidity after each tapping, and perhaps becomes putrid and stinking. Where it is only a question of excessive purulent secretion, simple washing out of the pleura with warm water after tapping may possibly change the action of the membrane, but in most cases it will be necessary to keep the canula in, cork it up, and daily allow the exit of pus, and then wash out the cavity. But in my opinion, if it comes to this, the better plan by far is the drainage-tube. A needle-eyed probe, being introduced through the original opening, is carried through to the opposite chest-walls, and is there made to protrude the muscle and skin of an intercostal space, the finger outside carefully feeling for it. The probe is cut down forced out through the chest-wall, and threaded with a strong thread; this is then drawn back through the chest till it comes out at the original opening. The thread is fastened to an India-rubber drainage-tube (pierced with openings in the manner devised by Chassaignac), and the latter is then drawn through the chest till it issues through both orifices. Nothing more then remains but to tie the ends of the tube lightly together."

ON THE INHALATION OF CHLOROFORM IN PARTURITION.

The following is Sir James Simpson's summary of the rules for the exhibition of chloroform in parturition:—

"1. Begin the inhalation of chloroform when the patient complains of much pain. This is generally towards the end of the first stage.

"2. Always inculcate perfect quietness around the patient, particularly when commencing to give the chloroform.

"3. Only give it during the pains, and withdraw it during the intervals.

"*Exceptions.*—Give a whiff of the chloroform also during the intervals when the pains are very severe, and the patient awakes complaining of them. Give small doses, or only repeat them every second or third pain, when the chloroform affects the action of the heart or uterus. These cases are very rare.

"4. When given during the first stage the anaesthesia need not be deep, unless the suffering be great or the symptoms of anaesthesia disagreeable.

"5. As the second stage progresses make the anaesthesia so complete as to destroy all sensibility.

"6. Do not allow the urinary bladder to become over-distended.

"7. Do not restrain the patient in one position.

"8. Be sure to remove the chloroform as soon as the child is born.

"9. Do not awake the patient artificially."

ON THE TREATMENT OF HEAD INJURIES.

Having carefully considered the whole subject of concussion and injuries of the brain, including compression and extravasation of blood with or without fracture of the skull—Mr. Bryant writes in his