small intestines, and bladder to be seen. These were covered with a very thin film which, however, had ruptured during birth.

As this is the only case of the kind I have seen, and as on speaking to my *confréres*, I find very few of them have met with a similar case, I thought this might be worth reporting.

There is very little literature on the subject. The best description I have seen being in Mr. Edmund Owen's book on "Surgical Diseases of Children." He calls it "fissura abdominalis," with "extro-version of viscera."

I expected to have found some mention of this condition in Gould's "Anomalies and Curiosities of Surgery," and in Gould's "Medical Annual," but they only speak of exstrophy of the bladder. Similarly, Treves, Erichsen, and Bryant speak only of ectopion vesicæ. However, in Sajous' "Annual of the Medical Sciences," 1891 and 1893, several very interesting cases are described.

I have looked through all the books I have on diseases of children, and with the exception of Mr. Edmund Owen's before-mentioned, I could find no reference to the subject. Quain's Dictionary merely mentions it. My friend, Dr. Inglis, has lately had a case of a child born at full time, with a large spina bifida, an imperforate anus, and an ectopion vesicæ. The child lived about a week.

A CASE OF SUB-PHRENIC ABSCESS.

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Miss M. D., æt. 32, was admitted to the Horsham Hospital on August 22, 1902. Illness began on August 3 with sudden and severe pain across the front of the lower part of the chest, particularly on the right side. This pain was first felt in the morning before breakfast. The pain was intense for two days, and she was given hypodermic injections of morphia to relieve it. At this time, she was told by her medical attendant she was slightly jaundiced, and that the pain was gall-stone colic. After the first two days, the pain became a good deal easier, though she was never quite free from it, and it settled into the lower part of the chest on the right side, and the adjoining part of the right side of the abdomen. She began to get short of breath, could not eat, and felt very weak.

The bowels only acted by enemata. There was no cough, no vomiting, no shivering, but she perspired freely at night.

At the time of admission, patient looked intensely ill. She was wasted, the face being pale and drawn. There was no jaundice. She was coughing almost incessantly, and said the cough only began the night before. Small quantities of purulent sputum were occasionally brought up, and this had a most stinking smell, and the same smell was apparent in her breath. She lay on her right side, and any change from this position, for the purpose of examination, caused great pain and respiratory distress, and also aggravated the cough. Temperature 100·6°; tongue clean, bright red; pulse 140, very weak and thin; respirations 40, shallow.

On inspection, it was seen the right side of the chest was moving very little with her breathing, while the left side moved freely. The right side of the chest below nipple level seemed bulged, the skin of the intercostal spaces in this region being distinctly pushed out to the level of the skin over the ribs—a marked contrast to the depressed condition of the intercostal spaces on the right side of the chest above the nipple level, and on the left side. Numerous large veins were seen in the skin over this bulging region. The apex beat could be seen and felt just below the left nipple. The abdomen was only moving very slightly with respiration, and below the right costal margin a slight fulness could be noticed, reaching half-way to the umbilical level. On percussion, the note was normal over the front of the right chest to the nipple; below this level, and as far back as post-axillary line, the note was tympanitic. This tympanitic area was very tender on percussion. Posteriorly, there was absolute dulness on percussion to an inch above angle of scapula, and this dulness ended quite sharply at post-axillary line, where the tympany already noted began. Over the area of normal percussion anteriorly, the vesicular murmur was clear but not loud, and vocal resonance was normal. Over the tympanitic area, no breath sounds could be heard, and vocal resonance and fremitus were absent. Over the dull area, at the base, there was loud tubular breathing, with bronchophony. The auscultatory sounds on the left side of the chest were normal. The heart sounds were clear. The note on percussion, over the area of fulness below the right costal margin, was tympanitic, and here too percussion caused great pain. On palpation, a swelling could be felt with a convex lower border. This border began internally about the tip of the

ensiform cartilage, passed downwards to its lowest point half-way between costal margin and umbilicus, and then ascended to pass beneath the ribs at the middle of the right ileo-costal space.

Previous History.—Patient said she had not suffered from indigestion, and was not subject to vomiting or pain after taking food. She had had severe attacks of pain in "the stomach," and had been treated for "neuralgia of the stomach."

A diagnosis of sub-phrenic abscess was made, the abscess cavity evidently containing a good deal of gas, and the swelling below the ribs was believed to be the displaced liver. She was so seriously ill, and as there was such danger of a complete rupture of the abscess into the lung, it was decided to operate at once.

Chloroform was administered, and an exploring needle inserted into the eighth intercostal space in the mid-axillary line over the tympanitic area. Pus was withdrawn. About two inches of the eighth rib were then excised. The parietal and diaphragmatic pleuræ were found adherent, and the diaphragm was incised, allowing the escape of three pints of very thin intensely fœtid pus, and a quantity of gas. On passing in the fingers, the abscess cavity was found to be the space between the diaphragm and the upper surface of the liver, to the right of the suspensory ligament. Drainage tubes were inserted, and the patient given a hypodermic injection of strychnine and put to bed with hot bottles. The following are extracts from my case book, showing the subsequent progress of the case:—

Aug. 23.—Had good night; no cough since operation; temperature normal; no vomiting; taking nourishment well. Large quantities of thin purulent fluid draining away. The swelling in the abdomen cannot now be felt.

Aug. 28.—Improving every day; good deal of discharge still, and still very offensive. The dulness still persists at right base, and now extends to mid-axillary line. Over this dull area there is bronchophony, and the tubular breathing now sounds more distant.

Sept. 4.—Signs at right base still persist. Has evening rise of temperature, but never over 100°. Exploring needle inserted at right base without finding anything.

Sept. 15.—Dulness now extends to anterior axilliary line. Faint vesicular murmur heard in patches over this dull area; distant tubular breathing elsewhere.

Sept. 22.—As signs much the same at base, needle inserted in several places without finding anything. Tubes left out to-day. Patient getting up; is gaining in weight, but sweats a good deal at night.

Oct. 1.—Wound closed. Base is still dull, but not so markedly as before, and all over dull area vesicular murmur heard with fair distinctness.

Oct. 14.—Only relative dulness at right base, and vesicular murmur quite distinct and clear.

Patient left the hospital, on October 17, quite well.

Remarks.

The chief interest in this case lies in the attempt to explain the cause of the abscess, and the cause of the condition at the base of the right lung.

Before operation, I quite expected to find a hydatid in the convex surface of the liver had ruptured, but no skins were ever seen. The fœtid odor of the pus and gas would seem to indicate some part of the alimentary canal as the source of the infection. It is not usual for sub-phrenic abscess, following perforation of gastric or duodenal ulcer, to be situated to the right of the suspensory ligament. The history of attacks of pain in the "stomach," and being treated for "neuralgia of the stomach," certainly suggests the possibility of an ulcer having been in existence; but against this there is the absence of vomiting, of any symptoms of distress after food, and also the fact that the stomach was empty at the onset of the attack. There was certainly nothing pointing to appendix trouble, and the abscess cannot have been the result of pus travelling from that region. Neither was there any reason to suspect the kidney as originating the mischief. An inflamed or suppurating gall-bladder may cause sub-phrenic abscess, and in this case patient was said to be jaundiced in the early part of the attack, but during her stay in hospital there were no symptoms pointing to involvement of the gall-bladder in an inflammatory process. The consolidation at the base of the right lung was probably of a septic nature, the organisms causing it reaching the lung from the abscess through the diaphragm, to which the base of the lung had evidently become adherent. A small perforation through the diaphragm and base of the lung into a bronchus had evidently occurred. The lung consolidation took some time to clear up, but fortunately did so eventually without going on to pus formation.