

One patient had bronchopneumonia, and two bronchitis, probably bronchopneumonia; and the day of the disease was 8, 25, 14, 14, 25, 6, 15, and 17 respectively. At the time of this experiment no control with a known agglutinating serum was possible.

#### CONCLUSIONS.

From the above observations it appears that influenza is not produced by Pfeiffer's bacillus, but by some other virus at present unknown, since—

1. The *B. influenzae* is found in only a proportion of the cases. Other workers have, however, recovered it in more than 90 per cent., but streptococci can be found in quite as many.

2. In certain epidemics of influenza it has been found extremely rarely, while in others it has been entirely absent.<sup>1</sup>

3. It is found in cases other than influenza.

4. No specific immunity has been demonstrated to follow infection with this organism. Here again, however, others have arrived at a different result, and have found agglutinins to the bacillus in certain cases of influenza, but their presence has been found by no means constant, and they appear more frequently in the first week of the disease than in the later stages.

The observation that the bacillus is pathogenic to animals after intracerebral injections is no proof of an etiological relation with influenza, since in the human disease infection can never be effected by that path; while equally invalid in this respect is the fact that it has been recovered from pleural, arthritic, and meningeal exudates. It is well established that certain organisms—for example, *B. coli communis*—though normally harmless saprophytes, may in certain circumstances become pathogenic; and it is probable, or even certain, that the *B. influenzae* Pfeiffer is one of these. What are the factors producing such a change have not yet been determined.

#### REFERENCE.

<sup>1</sup> Dopter et Sacquepée. *Bactériologie*, 1914, p. 527.

## PREGNANCY COMPLICATED BY VOLVULUS OF THE PELVIC COLON,

BY

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The publication in the BRITISH MEDICAL JOURNAL of December 13th last of Dr. M. Donaldson's interesting case of pregnancy complicated by volvulus, prompts us to place on record another case of the same kind presenting several remarkable features.

In February, 1918, one of us (E. C. B.) was called to see a lady five months pregnant who had symptoms of acute intestinal obstruction. She was very ill, in great pain, and the abdomen was exceedingly distended.

#### First Operation.

The abdomen was opened in the middle line and an enormous volvulus of the pelvic colon was found, so large that when untwisted the loop of intestine was long enough to reach from the wound to the floor of the room and back again. The bowel was not only greatly distended, but greatly hypertrophied as well. There was an anatomical abnormality whereby the descending colon was continued sessile over the brim of the pelvis and down its side wall to within an inch of the point where the rectum began. The pelvic mesocolon, therefore, had only this length of base from which it spread fanwise to its attachment to the enormous loop of movable pelvic colon, so that the whole loop was, so to speak, pedunculated, and it was at the point of the peduncle that the twist had occurred. At the junction of the colon and the rectum the bowel wall was much thickened and its lumen narrowed, so that a degree of chronic intestinal obstruction must have existed for some time before the acute attack took place, and there was, in fact, a history of symptoms for two years pointing in this direction.

Having untwisted the volvulus, the bowel was incised and emptied of a great quantity of gas and faeculent fluid; but even in its collapsed state it was so large that it was impossible

to return it into the abdomen, and it was necessary to "colostomize" it at the upper end of the wound, the segment left outside the abdomen being thrice the size of a man's fist. The pregnancy was not interfered with, as the patient's state did not permit of a prolongation of the operation.

#### Second Operation.

There was a good deal of suppuration round the colostomy, and it was several weeks before the exposed portion of the bowel shrank to a reasonable size.

The next problem was to deal with the pregnancy, for the position of the anchored bowel would not permit of the uterus attaining a size much over six months. Consequently, five weeks after the first operation vaginal Caesarean section was performed and a dead six and a half months child was extracted, the fetal head having been perforated first. The patient again made a good recovery except for a slight attack of femoral thrombosis three weeks after the operation.

#### Third Operation.

Finally, in June, the colostomy being healthy and the uterus involuted, the abdomen was reopened, the anchored bowel freed, the whole loop of still hypertrophied pelvic colon excised, and what was practically the end of the descending colon was joined to the rectum.

Once again the patient did well, and at the present time is in very good health.

## Memoranda:

### MEDICAL, SURGICAL, OBSTETRICAL.

#### DEATH DUE TO SWALLOWING A DENTAL PLATE.

A WOMAN, aged 40 years, was admitted into Chelsea Infirmary on October 9th, at 4.15 p.m., with the following history:

She had been healthy until three weeks before admission. On September 18th, in the afternoon, whilst eating a potato, she swallowed a dental plate. She drank a cup of tea to wash it down, and then tried to vomit, but could not do so. She felt pain and heaviness in the pit of the stomach, and pain in the back of the chest. She then took about 8 oz. of castor oil in two doses, but could not say whether she passed the plate. She was quite comfortable, took her food fairly well until October 8th, at 5.30 p.m., when she fell down a few stairs; she was picked up by her daughter in a fainting condition, and recovered after taking a drink of water. About half an hour later she complained of feeling faint, and vomited blood (about 10 oz.). She slept quite well that night, but at 6 a.m. on October 9th she again complained of faintness, with a sensation of choking, and then vomited about a pint of blood. She was seen by a doctor at her house, who ordered her removal to the infirmary, where she was admitted at 4.15 p.m. on the same day.



FIG. 1.—Dental plate showing attachment which pierced oesophagus into aorta (two-thirds actual size). A, Gold attachment of plate.

On admission the patient looked very pale, anaemic, was rather restless, respirations were rapid, her pulse being almost imperceptible at the wrist. She was given 1 c.cm. of pituitary extract (intramuscularly) and one pint of saline per rectum. She returned most of the saline mixed with blood. She then stated she felt faint, and had an attack of haematemesis, vomiting about 10 oz. of blood. Abdominal examination showed nothing except dilated stomach, with tenderness in the pyloric region. A haemic murmur could be heard all over the heart region, and the lungs showed evidence of emphysema and chronic bronchitis.

The patient rapidly became worse, and died at 5.15 p.m., complaining of choking sensation and the desire, but inability, to vomit.

A post-mortem examination was performed by order of the coroner on October 11th, and the following was found:

The body was well nourished. There was no evidence of violence except a slight discoloration of the skin over the left tibia. The mouth was normal; on opening the oesophagus a dental plate was found lodged 5 in. from the back of the pharynx, at the level of the arch of the aorta where the trachea divides. An attachment of the plate had pierced the left antero-lateral surface of the oesophagus and made its way into the aorta, just below the origin of the left common carotid artery. There was a bean-shaped ulcer (1 in. by ½ in.) on each side of the oesophagus where the margins of the plate had rubbed against the mucous membrane. There was also dilatation of the oesophagus. There was a large clot, easily detachable from the posterior wall of the aorta. The heart was fatty