pneumothorax we cannot expect relief in cases in which the increasing pressure within the chest is not greater than that of the atmosphere. This statement is also borne out in the reports of Dr. Sutherland of the North London Hospital for Consumption. Where tuberculous matter becomes deposited on the parietal pleural surface agglutination may take place between it and the pulmonary surface, with the result that the adhesion between the visceral and the costal layers may save the tuberculous patient from a pneumothorax. This *vis medicatrix naturæ* is often exerted; and in a like manner a pneumothorax once formed may retard the phthisical process by giving rest to the diseased lung through compression. In such a case the therapeutic effect of the pneumothorax may be effective in benefiting the phthisical patient for a short period. It might be supposed that individuals whose lungs are greatly reduced by the subsequent contraction of the chest would necessarily be reduced to a frail state of health and low scale of bodily strength, yet, curiously enough, some persons can follow the active pursuits of life, as instanced in Case 1. Laennec mentions the case of a distinguished Paris surgeon who, although he had one side contracted in a marked degree from empyema, yet enjoyed the best of health and lectured to his students twice daily. A similar case came under my observation in Bedfordshire, the subject of which is now getting his living as a flautist.

Shakespeare-villas, Nottingham.

REPORT ON AN OUTBREAK OF ENTERIC FEVER IN WARDS 3, 4 AND 5 OF THE BOROUGH OF LEICESTER.

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FROM January to April of last year there were two cases of enteric fever notified as having occurred in Wards 3, 4 and 5 of the Borough of Leicester. Since then twenty cases have been reported—viz., three in May, four in June, five in July, five in August and three in September. All these I have succeeded in tracing directly or indirectly to the consumption of herb beer infected, in my opinion, with enteric fever contagium.

The first case was that of F. M—, in B— street, a five-roomed house. He was notified as suffering from enteric fever on May 7th, and on investigation it was found that he had been ill for eleven days. The child was lying on an improvised bed in a back room, where he had lain for that time, the front room being used as a shop, where provisions, herb beer &c. were sold. The back room was in use as a living-room for the whole family, consisting of Mr. and Mrs. M—, seven children and the grandfather. At the time of the inspector's visit Mrs. M— was engaged in brewing the herb beer in the room where the child suffering from enteric fever was lying. A puncheon containing a few gallons of herb beer was standing in the room without a cover and in the act of being fermented with yeast. An iron pot containing boiling herbs was on the fire. The mother was cautioned by the inspector as to the danger she was incurring by brewing herb beer in a room in which a fever patient was lying, and the child was some days afterwards (May 20th) removed to the infirmary; but no further action was taken, as this was the time during which there was no medical officer of health in Leicester, my predecessor having died.

Since this case nineteen others suffering from enteric fever have been notified, and on making strict inquiries and close investigations as to drainage defects and milk and water supplies at the houses in which the cases occurred, I was satisfied that the facts that were brought out were not sufficient to account for all the cases, or even for the majority. I was accordingly led to look further, and a fact that attracted my attention was the "good trade" that was being done in the sale of herb beer from the very shop in the back room of which the child (F. M—) had been found by the inspector to be suffering from enteric fever and where the herb beer was actually made. Starting from B— street as a centre I succeeded in tracing the herb beer definitely to nine and indefinitely to six of the houses where enteric

fever had been notified as having occurred. In only five out of the twenty cases was I unable to get a history of herb beer having been drunk. I may explain that in using the word "definitely" I mean the history was distinct and the case proved conclusively—e.g., "gift" tickets given away to purchasers of the herb beer were shown &c.; whereas in those cases I have described as "indefinitely" traced, I mean that the evidence of herb beer drinking was distinct, but it could not be traced to B— street. Considering, however, that the houses were in the neighbourhood and that young people are apt to spend their pennies without being able to tell exactly a little while after where they spent them, we may reasonably suppose that some of the indefinite cases may also have partaken of the infected beer. Then, again, I was able to trace the fact that one other shop dealing in herb beer had on emergency replenished its supply temporarily from B— street, so that we may conclude that of the twenty cases fifteen had a history more or less definite of having partaken of the infected beer. I am by no means satisfied in my own mind that the remaining five cases had not also partaken of it, but from a statistical standpoint I am sorry I have been unable to prove this conclusively.

I may mention here that several cases of illness which the medical men in attendance have not felt justified in notifying as enteric fever, but which they have admitted were of a distinctly enteric type, have come to my knowledge. The important bearing of this must be evident when I say that I myself, as medical officer of health without private practice, have seen ten such cases lately.

An interesting though tragic episode in the epidemic deserves mention. On Aug. 8th Mrs. M— (the mother) who brewed the herb beer was notified as suffering from enteric fever. She had been ailing off and on for fourteen days previously, and on July 25th she, with her husband and family, removed to M—street, taking with them six bottles of herb beer which they had in stock from B— street. Mrs. M— was finally removed to the infirmary on Aug. 12th and died there on the 27th. I have succeeded in tracing the six stock bottles that were taken from B— street to M— street, two of them having been sold to a Mrs. B—, who at present is in good health, and the other four having been drunk by the M—s themselves, of whom another has since been notified as suffering from enteric fever (Aug. 26th). Indeed, of the M— family mentioned above the grandfather has alone escaped, while four have had enteric fever (one dying) and the remaining five have suffered more or less from pseudo-enteric symptoms—e.g., purging, low fever, depression &c. The grandfather's escape is explicable by his age.

The ill-fated house in B— street was left by the M—s on July 25th and taken on the same day by a family named B—, who have brewed and sold other herb beer since. There is no illness in the house now, and the M—s' stock has been removed, not a single bottle remaining in B— street.

With a child lying ill [of enteric fever in a room where the mother was brewing herb beer it is not very difficult to understand how the mother's hands may have conveyed the germs from the patient into the beer. I need not, I think, however, go so far as this. It is sufficient for my purpose to know that the herb beer when brewed stood uncovered for hours in a room in which a child was lying ill of enteric fever, with a chamber utensil (probably containing typhoid stools) on the ground.

The medical histories of the cases are very definite. Taking the first case in B—street as the infecting centre, and remembering that the child was lying ill in the back room from about May 1st until the 20th—when he was removed to the infirmary—we can understand how the beer brewed during that period was contaminated.

Though the sewage of this particular area is not perfect, there is nothing specially calling for remark, whilst other areas of the town (where the sewerage is worse) show a clean bill as regards enteric fever. Then, again, all the houses affected do not drain into one separate system and the sanitary arrangements are all external. The sinks in all cases were disconnected from the main drainage. All the houses were supplied with the Corporation water, which at that time was good.

Inquiry into the milk-supply of the various houses infected gave negative results, though it is a strange coincidence that one particular milkman supplied nine out of the twenty cases. Careful investigations in this direction, however, showed nothing amiss. I was thus driven to look elsewhere, and I

think I have proved my case as clearly as is possible in investigations of this kind. There are many difficulties to contend with in prosecuting these inquiries as the people in the neighbourhood of B— street &c. are easily led in conversation, and without considerable tact and discretion the information obtained is practically useless. The epidemic being small my difficulties were fewer and consequently the information is more trustworthy.

A bottle of the beer was purchased by me for bacteriological purposes, and I have endeavoured, without success up to the present, to cultivate colonies of the typhoid bacilli by inoculating agar and peptone with drops of the beer. I can hardly look upon want of success in this direction, however, as damaging my case, considering the present uncertain knowledge we possess of the typhoid bacillus.

Leicester.

FIVE CASES OF LAPAROTOMY PERFORMED ON PATIENTS OVER SEVENTY YEARS OLD.

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LONG lists of successful ovariectomies can no longer serve any good purpose, for it has been proved that the mortality of ovariectomy should not exceed 5 per cent. My excuse for publishing the following cases is the advanced age of the patients. Sir G. M. Humphry long since pointed out that in old people repair and recovery are likely enough to follow major operations. This is true of abdominal section,—a fact not sufficiently recognised. My list includes all the patients over seventy on whom I have performed abdominal section, five in number. Four of them had ovariectomy successfully performed. Three of these are well and active at the present time. One died nearly two months after operation from the results of appendicitis. The fifth recovered from an exploratory abdominal section made to ascertain the nature of, and to treat if possible, an abdominal tumour of doubtful character and origin.

CASE 1.—A widowed aged seventy was sent to me in December, 1890, by Dr. McBean with a cystic tumour in the abdomen. For several months she had noticed a growing swelling, had lost flesh and strength, and had been troubled with a hæmorrhagic vaginal discharge. The patient was a thin, wiry-looking old lady, very nervous but cheerful. Nothing was found wrong except in the abdomen, which was distended to about the size of a six months' pregnancy. The distension was due to a fluctuating tumour fixed below in the pelvis. The left fornix was bulged by an elastic fixed tumour pushing the uterus over to the right. On Dec. 22nd, 1890, I performed the following operation. A broad ligament cyst was exposed, tapped, and enucleated after dividing the peritoneum covering it. The hæmorrhage was arrested by tying each bleeding point as exposed. A large raw surface was left, over which the stripped peritoneum was laid. The operation occupied one hour. Drainage was employed for three days. The patient recovered so rapidly that she was allowed to get up on the tenth day, and went home well in a fortnight.

CASE 2.—A widow aged seventy-four came to me in August, 1892. The patient discovered an abdominal swelling herself ten years ago and consulted a medical man, who said it contained fluid. The swelling had steadily increased in size, but except by its weight had caused no discomfort. She had had no teeth since she was thirty years of age, and was never robust. All her family were short-lived. The patient was a thin, anxious-looking woman with wrinkled skin and brown hair turning grey. Nothing was discovered abnormal except in the abdomen, which was rounded, prominent and larger than a full-time pregnancy. A large, well-defined cystic tumour was the cause of the swelling. It filled the abdomen so completely as to appear immovable, but friction could be felt over it on pushing it from side to side and during forced respiration. The tumour could be felt in front of and distinct from the uterus. On Aug. 6th, 1892, I removed a large cystic ovarian tumour free from adhesions. The after progress was uneventful. On the ninth day the dressings were taken off for the first time and the sutures taken out. The wound had entirely healed by first intention. On the fifteenth day the patient went home well.

CASE 3.—A widow aged seventy-two, under the care of

Dr. Oliver, seventeen months ago noticed a "lump" in the lower part of the bowels. There was no pain, but "the womb came down." Four months ago the tumour began to increase in size and rapidly became larger. The uterus now troubled her and she noticed a coloured vaginal discharge which had increased during the last four or five weeks. The weakness produced by this was her chief complaint. Her health since she attained the age of forty-five years had been fair. Up to that time she suffered from bilious attacks. She was a trim, bright-complexioned old lady with iron-grey hair and a senile cataract in her right eye. Her heart was hypertrophied, as was shown by a diffused and heaving apex beat. The arteries were rigid and tortuous; the lungs were healthy. The urine was normal in quantity; sp. gr. 1005; a trace of albumen was present. The skin of the abdomen was much pigmented, especially over the upper part, and the superficial veins were dilated. The abdomen was made prominent by a rounded cystic thin-walled tumour, flaccid and apparently unilocular, about the size of a large football. It was freely movable from side to side, but not from below upwards. The anterior wall of the vagina was prolapsed and the anterior cul-de-sac filled by a rounded elastic tumour. The left fornix was bulged out by the swelling. On the right side a hard nodular swelling was connected with the tumour. The uterus lay behind and was free from the tumour. On Sept. 8th, 1892, I performed the following operation. A flaccid cyst of the right ovary containing about one gallon of very thick glairy fluid was removed. The left ovary, with a hard tumour about the size of a walnut growing from it, was also taken away and the abdominal wound entirely closed. Subsequent progress was most satisfactory. The dressing was changed for the first time on the tenth day after the operation when the stitches were taken out. The wound healed by first intention except at one place about half an inch long, where the skin had become inverted and granulations were visible. This healed a few days afterwards. On the tenth day the patient left her bed, and on the fifteenth she went home.

CASE 4.—A widow aged seventy-seven, a patient of Dr. Munro of Barnard Castle. For years her abdomen had been large. She was suddenly seized with pain in the right iliac fossa, vomiting and shivering. The pain soon afterwards extended to the right leg, preventing her from straightening it. The bowels had been confined and she had been feverish and sweating at nights during the whole illness. The day previous to my visit Dr. Munro and Dr. Drummond found by means of a hypodermic syringe, fetid pus in the right iliac fossa. Thirty-three or thirty-four years ago she had a dangerous illness—"inflammation of the bowels"—on the right side. She had never been robust but usually healthy. The patient was a thin, dark woman, who looked ill with high temperature, tender swollen abdomen and cedematous legs; the right leg was more swollen than the left. An operation was performed on Sept. 20th, 1892. On opening the abdomen in the right linea semilunaris an ovarian tumour the size of a football was exposed and removed. No pus was found in it and there was nothing about it to account for the patient's serious condition. The cæcum which Drs. Munro and Drummond had suspected to be the cause of the mischief, was now examined. It was adherent to the parietes and a fluid collection could be felt behind and to its outer side extending back to the loin. A second incision above the centre of the crest of the ilium allowed the escape of fully six ounces of fetid pus. The anterior or ovariectomy wound was sutured and the lateral wound drained with a glass-tube, each wound being separately attended to and dressed. The ovariectomy wound never gave any trouble and quickly healed. Until Oct. 8th the after progress was most satisfactory, the general condition improved with return of appetite, sleep and freedom from pain. On this date the glass tube could not be replaced by the nurse, Dr. Munro and myself, and for the first time since the operation her evening temperature was over 100°.—Oct. 9th: No discharge from sinus; evening temperature 103°.—12th: A gush of pus from sinus with lowered temperature.—Recurrences of similar sort took place till Oct. 20th, when a fresh tender lump was noticed.—25th: Under chloroform I freely opened an abscess which extended from the iliac crest to the costal margin. The cavity appeared to be between the muscle of the abdominal wall and contained about four ounces of pus. Improvement followed and the patient was able to be out of bed. Soon, however, she relapsed, with some evening rise of temperature.—Nov. 5th: Dr. Munro suspected