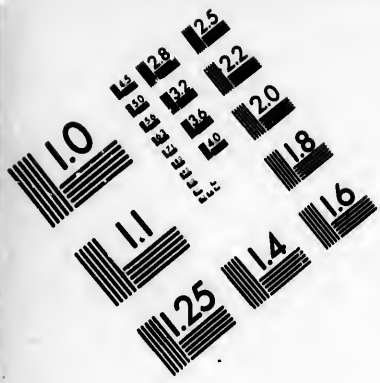

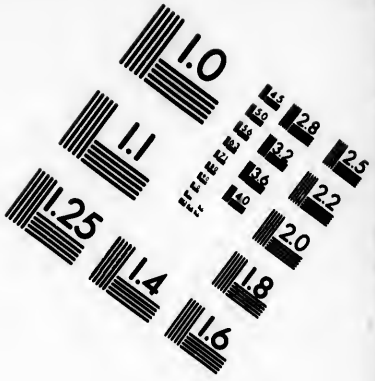

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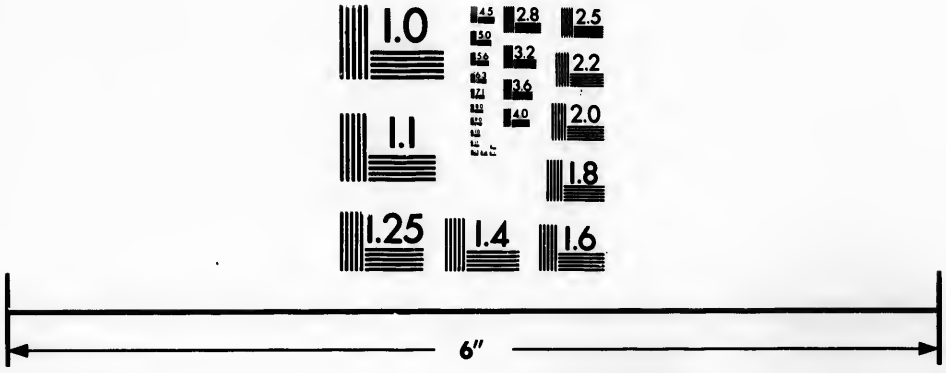

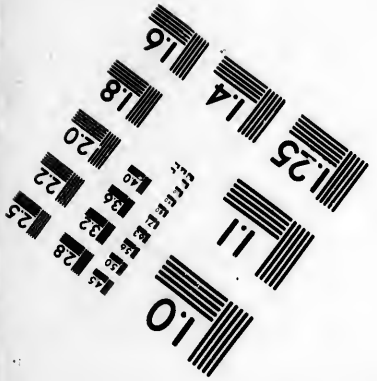

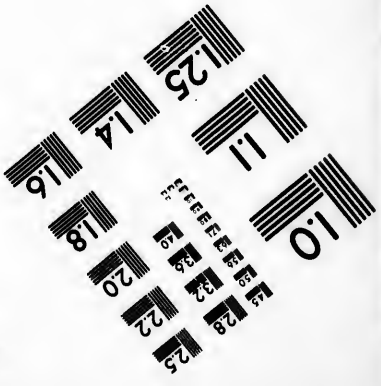

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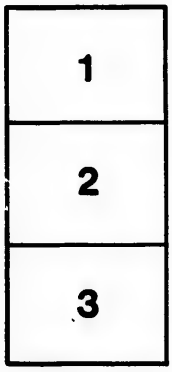

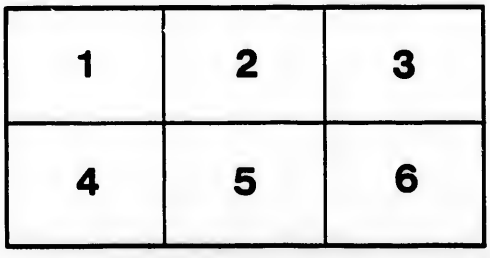

NOTES ON SOME RECENT GALL-STONE CASES.

BY

JAMES BELL, M.D.,

Surgeon to the Royal Victoria Hospital; Consulting Surgeon to the Montreal General Hospital; Professor of Clinical Surgery in McGill University, &c.

(*Reprinted from the Montreal Medical Journal, January*, 1898.)

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MR. PRESIDENT AND GENTLEMEN:

It is not my intention to read a paper on the subject of cholelithiasis, nor even on any portion of the subject, but simply to present, in connection with the specimens removed by operation, very condensed reports of the cases upon which I have operated during the past summer and autumn. They are as follows:

CASE I.—Mrs. T., æt. 40, a slight woman, normal weight 100 lbs., married 13 years, the mother of three children, the youngest eight years of age, came under observation on the 11th of May, 1897. Her first attack was nine years ago and is described as a severe aching pain through the right side and more or less through the whole upper zone of the abdomen, lasting about half a day, accompanied by vomiting and followed by a tumour the size of a man's fist, just inside the right anterior superior iliac spine. This was tender and painful and she was confined to her bed for seven weeks. During this time the tumour was painful on movement of the body. She was then quite well for three years, except that she felt some pain in the side after every unusual exertion. Six years ago she had a second attack, accompanied by nausea and vomiting and lasting about the same length of time; athough she was not confined to her bed for so long a period and had no tumour following the attack. She then remained well until March, 1897, except that on exertion she felt some pain in the right side. She had a series of attacks similar in character about

[1] Read before the Montreal Medico-Chirurgical Society, Dec. 10, 1897.

the first and fifteenth of March and the first of April (1897), and two others during the month of April, while in bed, which she only left to come to Montreal on the 11th of May. On being questioned, she remembered having had indefinite abdominal pains for years prior to the first attack nine years ago. She had always enjoyed good general health and had never suffered from jaundice, dyspepsia or uterine troubles. During her illness her weight had fallen to 89 lbs. On examination of the abdomen a hard and tender mass was felt just external to, and about an inch below the umbilicus on the right side. It could be traced up more or less indefinitely to the costal margin, in the nipple line, and moved slightly with the movements of respiration. On account of the evident inflammatory nature of the attacks and the situation of the tumour a diagnosis of appendicitis had been made. The operation of cholecystostomy was performed on the 17th of May, when four large and 132 small stones were removed. The four large stones stood one upon another in a column extending outwards from the neck of the cystic duct, the deepest one being firmly impacted in the duct and broken in removal, which was effected with much difficulty. The small stones were free in the gall-bladder, which contained a small amount of pus, the latter being sterile on cultivation.

This patient made an uninterrupted recovery, and was discharged on the 5th of July, with the wound not quite closed. Within the last three months I have heard from her that her health is excellent but that the fistula still persists.

Case II.—Mrs. W., a stout woman, æt. 50, an epileptic, married, and the mother of one child, now grown up. Her first symptoms appeared in April, 1895, as an attack of biliary colic, accompanied by vomiting, chills and fever, for which she spent three weeks in the Homeopathic Hospital. She says she was jaundiced then. Since then she has had a great many similar attacks and was admitted to the Royal Victoria Hospital on the 13th of July, 1897, with slight yellowness of the skin. Cholecystostomy was done on the 24th of July, and 124 stones removed. The patient made an uninterrupted recovery and was discharged on the 14th of August in good health and with the wound soundly healed, although there had been for some time after operation a very great flow of bile externally.

Case III.—Mrs. B., æt. 48, the mother of six children, had suffered from a dull pain about the right hypochondrium for 22 years. In December, 1895, she began to have attacks of sharp pain about every three weeks, and about Christmas of that year a dull pain extending into the right shoulder region. In March, 1896, she had the first attack of severe biliary colic, accompanied by chills, perspiration and

vomiting. These attacks continued, sometimes recurring as often as every three weeks, and an attack in January, 1897, was followed by jaundice. In the intervals between the severe attacks she suffered from the dull pain above described. When admitted to the hospital on the 24th of July, 1897, she was a well nourished woman with a systolic murmur at the apex of the heart, but otherwise healthy A smallish smooth round tumour could be felt in the region of the gall-bladder and on palpation the crepitus of the stones moving upon one another could be distinctly felt. She was operated upon on the 29th of July. The gall-bladder was moderately distended, containing a small quantity of normal bile. Sixty-six facetted stones were removed; 62 of them were free in the gall-bladder and were removed without difficulty. Another was removed with great difficulty from the neck of the duct, and a group of three were impacted in the cystic duct so firmly that an incision was made through its walls, through which they were removed. This incision was closed by fine silk sutures. There was no flow of bile during the operation, after the gall-bladder had been emptied. The gall-bladder was fixed in the wound in the usual way, and after a few days bile began to flow through the tube, though never in great quantity. The patient made an uneventful recovery and was discharged on the 8th of September, with a very slight serous discharge from the site of the wound.

I have since heard that the sinus persists, although her health is good and she is free from pain.

Case IV.—Mrs. C., æt. 47, a large woman with flabby pendulous abdomen, the mother of 11 children, the last born six years ago, was admitted to the Royal Victoria Hospital, in a deeply jaundiced condition, on the 13th of August, 1897, with the following history: She had her first attack of pain in the right hypochondrium in 1881. This was not accompanied by vomiting or chill, but was followed by jaundice. Similar attacks occurred about once in two years up to 1894, when she had a much more severe attack, in which she suffered for 12 days. In the next two years she had one attack each year. Each of these attacks was also followed by jaundice. Since May 1897, she has had many attacks, and the jaundice has never entirely disappeared. The stools have been colourless and the urine dark all the time. The last attack began on the 26th of July, and lasted for three days. Since then the jaundice has been extreme, and has increased rather than diminished. The abdomen was opened on the 17th of August. The gall-bladder was found empty and shrunken. The liver was enlarged and firm, and the lower border thick and rounded. There were many firm old adhesions between the lower

surface of the liver and the adjacent viscera. On exposing the ducts a stone was felt in the common duct, about half an inch from the duodenum. It appeared to be about the size of a large marble and was firmly fixed in the duct, and could not be moved along it in either direction. A longitudinal incision was made in the duct and the stone removed. It was not a hard stone and was broken in removal. As it was turned out of the duct a gush of bile followed This was sponged out and the incision closed by sutures. A drainage tube was passed down to the border of the duct and iodoform gauze packed around it. The patient made an excellent recovery. The jaundice gradually disappeared, and the stools and urine regained their normal colour in a few days. She was discharged on the 1st of October quite well.

This was a solitary stone which had evidently been in the common duct for a very long time.

CASE V.—Mrs. H., æt. 23, married, the mother of two children, the youngest 14 months old, had her first attack of biliary colic on the 1st of April, 1897 From that time to the 1st of June, she had five similar attacks, very severe pain in the right hypochondrium, lasting about four or five hours, accompanied by vomiting and followed by perspiration. The sixth attack on the 1st of June lasted more or less for nine days, and was followed by slight jaundice. Then she had an attack every 24 hours for ten days with more intense juandice, colourless stools and high coloured urine. From that time until her admission to hospital she had attacks every three or four days, lasting about three hours each, and with persistence of the juandice. Her physician was able at this time to palpate a tumour in the region of the gall-bladder. On the evening of the 18th of August, she left home to come to Montreal, a distance of some 60 miles, by train. She suffered intensely during the trip and all through the night, but was relieved in the morning. She was operated upon on the 25th, one week later. During this week she had no attacks, the tenderness diminished greatly and the jaundice lessened perceptibly. The first two stools were colourless, the next two slightly coloured, and the last two (in this week) almost normal in colour. Careful examination of the stools, however, failed to discover any gall-stones. It was therefore a question whether this woman should be submitted to operation or not. Operation was decided upon and the abdomen was opened on the 25th of August (as already stated). The gall-bladder was found large and flabby and the bile ducts dilated to the size of a large lead pencil. The head of the pancreas was hard and thickened (apparently inflammatory thickening), but there were no stones in any

of the bile passages. The stone, or stones, had evidently been passed in the last attack, although they were not found in the stools. The patient made an uneventful recovery and was discharged on the 23rd of September.

CASE VI.—Mrs. P., æt 30, a medium sized, well nourished woman, the mother of five children, ranging in age from 12 years to 11 months, was admitted to the Royal Victoria Hospital, on the 13th of September, 1897, with the following history : On the 27th and 28th of August she had had an attack, each day, of biliary colic. Tenderness persisted and a mass was palpable in the right side of the abdomen, below the costal margin. She had suffered from more or less constant uneasiness in this region for six years, and during her labors she had suffered more in this region than in the uterus.

Cholecystostomy was done on the 13th of September. The gall-bladder contained about an ounce of colourless viscid fluid, sterile on cultivation and seven facetted stones. The operation was simple and recovery uneventful. She was discharged with the wound completely healed on the 14th of October, 1897.

CASE VII.—Miss C., æt. 35, unmarried, and previously healthy, while suffering from typhoid fever, (about the end of the second week), was seized with pain, vomiting and a fall of temperature, (to 94.5°F),—a condition of collapse suggesting perforation,—early in the morning of the 21st of September, 1897. She rallied in a few hours, and a painful, tender and rigid condition developed just below the right costal margin. The abdomen was opened in the linea semilunaris on the 24th of September, at 4.30 p.m. There was no general peritonitis, but the gall-bladder was distended and covered with patches of lymph, which extended over the lower border of the liver and to the adjacent coils of colon and duodenum. There was no perforation. The gall-bladder was aspirated and 6 oz. of pus, which gave pure cultures of the typhoid bacillus, withdrawn. It was then incised and 152 facetted stones removed, and the operation of cholecystostomy completed in the usual way. The wall of the gall-bladder was very dark, œdematous and friable. A drainage tube was inserted and bile flowed freely. On account of the pre-existing localized peritonitis an opening was left on the lower angle of the abdominal wound, through which a drainage tube and iodoform gauze packing were carried up along the under surface of the liver between the bile passages and the intestines. The patient's condition was excellent until the morning of the 26th, when symptoms of perforative peritonitis began about 7 p.m., and she sank and died at 4 a.m. next morning, the 27th of September. The wound was dressed at 4.30 p.m. on the 26th and the

tube removed. The intraperitoneal drain and packing were also removed and the packing renewed at the same time, when everything looked quite well and promising. Bile continued to flow from the opening in the gall-bladder to the end, and there was no evidence that it had given way. A partial post-mortem examination was made through the operation wound, 11 hours after death. A general purulent peritonitis was found and four small facetted stones were removed from a pocket at the lower angle of the wound. The walls of the gall-bladder were injected and its mucosa much thickened and of a deep green colour. The surrounding liver tissue was pale and leathery, with multiple focal miliary necrosis. The small intestine was removed and showed the typical anatomical lesions of typhoid fever. A rupture through a typhoid ulcer was found, (but may have been made in the removal of the intestine), about eighteen inches above the ileocæcal valve. In the absence of a complete post-mortem examination of the abdomen, my interpretation of the sudden, fatal termination in this case is, that ulceration of the deeper part of the gall-bladder or the cystic duct had taken place into, or upon the adjacent under-surface of the liver, and that it was the bursting and emptying of this abscess cavity which set up the fatal peritonitis. In no other way can I account for the presence of four gall-stones in the peritoneal cavity, as I am sure they did not escape into the abdomen at the time of operation and the steady flow of bile externally for hours after the fatal symptoms set in, showed that there could not be any direct communication with the abdominal cavity. Moreover, the wound was examined and the gall-bladder sutures were found intact five hours after the onset of the symptoms.

Case VIII.—Mrs. P. H. A., æt 25, a medium-sized, well nourished woman, the mother of three children, was admitted to the Royal Victoria Hospital on the 10th of October, and operated upon the next day. In August, 1893, two weeks after confinement, she had her first attack of biliary colic, preceded by a chilly feeling and followed by vomiting. She then had attacks every two weeks, until the end of September, 1893, when she had a very severe attack, which was followed by jaundice for 24 hours. She remained well until the 15th of August, 1897, when she contracted measles and the attacks returned; and the gall-bladder became tender and palpable. The last attack of biliary colic was on the 6th of September, 1897.

At the operation, the gall-bladder was tense and distended, and contained several ounces of thick creamy pus, and a single stone. Cultures from the pus showed the colon bacillus only. Her progress after operation was most satisfactory, and she left the hospital in nine days,—October 28th,—to be taken charge of by her own physician.

The wound is completely healed and her general health is first-rate.

An interesting question in this case is whether or not the cholecystitis was caused by the attack of measles.

CASE IX.—Mrs. C., a large, fleshy woman, æt 61, the mother of 14 children, intensely jaundiced, and suffering from two large carbuncles on the right side of the abdomen and on the right loin, was admitted to the Royal Victoria Hospital on the 13th of October, 1897. Her history was as follows: She had always enjoyed the best of health until March, 1894, when she slipped and fell, striking her right side against a barn door. The immediate effects of this injury passed off in a few days, but a month later she had a severe attack of spasmodic pain about the right costal margin, unaccompanied by chill or vomiting. She had similar attacks about twice a year for the next three years, each being accompanied and followed by tenderness, just below the right costal border. On the 10th of August, 1897, a very severe attack came on and persisted, with short intervals of relief, until she came to hospital. It was accompanied by chills, a sense of fulness at the stomach and persistent vomiting. Three weeks after its onset jaundice appeared and grew steadily more and more intense. The stools were colorless and putty-like, and the urine very dark. The carbuncles were treated on the 14th of October, and the abdomen was opened on the 4th of November. A facetted stone was found freely movable in the common duct, and removed through a longitudinal incision, which was closed by suture. The gall-bladder was shrunken and contracted and contained 6 facetted stones, which were removed through an incision in its walls. There was no evidence of communication between the common duct and the gall-bladder, and the wound in the latter could not be brought up to the parietal peritoneum. The liver border was round and firm. A drainage tube was carried down to the wound in the duct, along the under-surface of the liver, and the space packed off by strips of iodoform gauze. The patient made an uninterrupted recovery, and, although still in hospital, she is practically well and ready for discharge. The bile-staining disappeared gradually from the skin and urine, and within a week the stools were of normal color.

An interesting feature in this case is the fact that the group of 7 stones which had hitherto given rise to no symptoms whatever, seems to have been disturbed by the traumatism in March, 1894, and that this disturbance was the starting point in a series of changes which culminated in the conditions above described.

CASE X.—Mrs. C. C., a pale woman, somewhat deaf, æt. 27, the mother of one child, had an attack of biliary colic about a year ago

accompanied by chills and vomiting. She recovered from this and remained well until November 8th, 1897, when she had another attack. She had a third attack on the 13th of November, and was sent into the Royal Victoria Hospital. She also had similar attacks on the 20th and 23rd of November, and was operated upon (cholecystostomy) on December 2nd, 1897. Seven facetted stones were removed from the base of the gall-bladder, the sac also containing some bile. This sac was found to be completely closed off from the remainder of the gall-bladder, which also contained 6 facetted stones. An incision was made lower down in the gall-bladder, through which these stones were removed, and the incision was closed by suture. A communication was then made through the occlusion, and a drainage tube inserted down to the cystic duct.

This patient's progress since operation has been quite satisfactory.

It will be noted that all these patients were women, who were, with one exception, the mothers of families, and that their ages varied from 23 to 61 years. There were two cases of solitary stone; the others were all multiple.

The operations were: Simple cholecystostomy, 5; cholecystostomy with incision (and suture) of the cystic duct for the removal of a group of impacted stones, 1; incision (and suture) of the common duct for the removal of a solitary impacted stone, 1; incision (and suture) of the common duct for the extraction of a movable facetted stone, and incision of the shrunken gall-bladder in the same patient for the removal of six other similar stones, 1; and in the tenth case the discovery that the stone (or stones) had already passed through the ducts.

Results.—With the exception of the typhoid patient, all recovered, and in no case was there at any time a symptom to cause anxiety. One patient had, at the end of three months, a biliary fistula, another had a sinus persisting, six are completely healed and one was operated upon only eight days ago.

Case VII. is another case in evidence of the frequency of cholecystitis as a sequel to or complication of typhoid fever, and emphasizes the fact that bile, so far from being destructive to the typhoid bacillus, is, actually, an excellent medium for its growth and reproduction. In all the cases the operation was completed at a single sitting.