MULTIPLE (PYÆMIC) ABSCESS OF THE LIVER AND LUNGS.

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THE case I bring under the notice of the Academy is one possessed of some points of interest beyond that of its intrinsic nature.

One such interesting feature I conceive to be the long duration which elapsed between the occurrence of the original inflammatory disease of the peritoneum and the infection through the splenic vein, which produced the final abscesses of the liver and lungs.

And a second point I would indicate in the mode by which the putrefactive virus was introduced, so as to convert a chronic inflammatory thickening of an old localised peritonitis into a centre of infection and pyæmia.

The following are the clinical records, taken by my clinical clerks, Messrs. Kenny and Tuthill:—

R. B., aged twenty-seven, unmarried, was admitted to Sir P. Dun's Hospital, November 16, 1887, under my care, with the desire of breaking off a habit of using morphia hypodermically as a stimulant—a practice he had acquired four years previously, and which had latterly completely mastered and demoralised him. It is not cognate to my subject to refer to this further than to state that the medical use of morphia was first recommended and applied in this city by physicians of the highest reputation for the relief of suffering, referred by the patient to the region of the stomach, under the left costal arch. He stated that it was a question among his medical advisers as to whether he was suffering from cancer at that time. The morphia relieved his pain, and eventually he was cured of his symptoms for a couple of months. It then returned, and he used the morphia himself, and

thus became addicted to its use, and, finally, he could not do without it—his allowance latterly being 12–13 grs. per diem, 3 grs. or 60 m of Pharmacopœial hypodermic solution being the dose he found sufficient to procure 4–6 hours' comfort.

I mention these facts as they probably indicate the time when he had a localised peritonitis adjoining the splenic flexure of the colon. At this time and frequently subsequently he had much difficulty in properly evacuating the bowels, and he described the peristaltic action of the bowel as being violent up to the point referred to, in the left side of the abdomen, and then as being arrested.

On admission he presented an emaciated, sallow appearance, and stated he had lost 3–4 stone in weight. His appetite was almost *nil*, and his bowels were very hard to move.

On November 27th, ten days after admission, he complained of pain in the left side of his abdomen, at the level of the umbilicus, and shifting towards the left lumbar region, and the bowels had not moved for three days. Aperients and soap and oil enemata produced little result, and for the succeeding week he presented the symptoms of enteritis—viz., his tongue became furred, the papillæ red and prominent, the temperature febrile, reaching a maximum of 102.8° on December 1st; with the usual accompaniments of headache, loss of appetite, and sleeplessness. Several hard lumps were removed by enemata of linseed tea during this time, while physical examination produced pain in the place indicated, and revealed by percussion an increased area of dulness, which corresponded to that of an enlarged spleen. The urine was free from albumen or indigo.

Some improvement in his general and local symptoms followed for the next ten days, when again the fever rose, and from December 10th to 20th, when death occurred, it ranged from 101° in the morning, to 102.5° in the evening (on the evening of 15th going up to 103.6°). Night perspirations during sleep were now and then noticeable, but they were not always excessive. On December 15th, for the first time, he had some purulent expectoration, which on one or two occasions contained a little blood. It was, however, unlike pneumonic sputum. Careful and repeated examinations of the lungs resulted in negative results beyond a slight and limited patch of dulness at the inferior angle of the right scapula.

Subsequent observations elicited mucous râles here and there through both lungs, and the sputa became more distinctly puru-

lent, unmixed with mucous or blood, and free from all bad odour. Slight jaundice was detected in the urine on the 15th, and both liver and spleen are reported to be enlarged.

The jaundice was better marked in the conjunctiva and skin on December 16th, and though present till death it was at no time very pronounced. With the occurrence of jaundice delirium set in, chiefly at night, of the "busy" nature, the patient getting up and walking about. The pulse became very rapid—120, 136, 144, while it lost in body. Sleep, which was before procurable by urethane, left him, and he sank rather suddenly on December 21st.

En résumé. Three periods of about ten days each may be noted. The first, emaciation, malaise and constipation; the second, irregular febrile and gastric disturbance, the pulse not exceeding 100; the third decade closing the scene with pyæmic symptoms—delirium, night-sweats, hectic fever, and rapid pulse, and also the local manifestations of secondary abscesses of lungs and liver by purulent expectoration, jaundice, and enlargement of the liver.

Post-mortem Examination of R. B.^a

Left Lung.—Upper lobe emphysematous, especially in front and superficially. Lower lobe (pleura thickened) was in a state of pneumonic consolidation, friable; on section was greyish in colour, and there were some yellow purulent spots.

Right Lung was emphysematous. On section there were found several yellow purulent spots, better marked than in left lung, and localised to one area. Lower lobe was in a state of congestion; there were several small loculi full of purulent matter, exactly like the expectoration. This lung is not friable; the abscesses are most likely embolic in origin; very little redness surrounded the depots of pus. There were some enlarged soft glands at the roots of both lungs.

Liver is greatly enlarged, but preserves its normal shape. On its surface are small, grey, slightly-elevated spots, varying in size from a large pin-head to that of a split pea, many of them being in clusters; are most marked on left lobe; on under surface of liver they are very plentiful. There are signs of late peri-hepatitis on under surface of liver, thick flakes of lymph exudation existing in the sulci on each side of the gall-bladder. On section are found small abscesses, the size of a pea, scattered throughout the liver, and are very numerous.

^a Notes taken Dec. 23rd, by Mr. Alfred Tuthill.

Gall-bladder is thickened and indurated, especially at the cystic duct; contains some bile, which is of a normal rhubarb colour.

Common Bile Duct is not obstructed.

Cystic Duct at exit appears to be thickened.

Hepatic Duct.—There is a small abscess in wall of right duct, and would most likely account for the jaundiced condition of the patient.

Stomach appears to be free from disease, there being no thickening or ulceration.

There is great thickening and matting together of the *gastro-hepatic omentum*.

Gastro-splenic Omentum is shorter than natural; the back of the stomach is adherent to the pancreas.

Pancreas.—The tail of the pancreas is thickened and matted to the splenic vessels, and is also tightly adherent to the lower portion of the spleen.

Spleen.—Its size and its anterior edges are normal. The inferior extremity is adherent to the kidney by a very thick mass of inflamed peritoneum. The splenic flexure of the colon is adherent to the spleen. Spleen has a small irregular abscess in its posterior peripheral substance, which has a minute communication with the large abscess behind it. Otherwise it appears healthy.

Immediately in relation to the spleen was found an abscess, bounded in front by the spleen, behind by the pancreas and kidney, below by the large bowel, into which it discharged.

The abscess contained two ounces of cheesy, grumous material. This abscess seems to have originated in old peritoneal adhesions, and is not a true nephritic abscess—although the kidney is adherent to, and cannot be separated from it.

The Kidney (left) presents a small abscess in the cortex, adjoining to and communicating with the above abscess.

The pelvis of the kidney is only congested; there are no signs of pyelitis. The ureter is free, and not congested. The greater portion of the substance of the kidney is healthy; the cortex is slightly paler than normal.

Great Intestine—*Splenic Flexure* is adherent to spleen and abscess; is not inflamed. Two small perforations were found leading into the cavity of the large abscess.

Duodenum.—There is a thick mass of inflammatory products near the first part of the duodenum in the gastro-hepatic omentum; but it does not appear to have hindered in any way this portion of the gut.

Mesenteric Glands are enlarged and pinkish in colour; but no yellow masses can be found in them.

Inf. Vena Cava appears quite normal.

Hepatic Veins appear quite free.

Brain and its membranes appear normal.

Remarks.—The order of pathological processes is, as I take it to be, somewhat thus :—

Four years ago a localised peritonitis occurred above the splenic flexure of the colon, matting the bowel to the front of the left kidney, the spleen, and the tail of the pancreas. This was probably cured by the rest obtained from the morphia. It left, however, an amount of fibrinous material, which hampered the free movement of the bowel, and induced attacks of constipation. During the patient's residence in hospital one such attack came on, and produced fæcal lodgment, which, when removed, was described as if it had lain a long time in the bowels, and was covered with a thick coating of white felted matter.

The contiguous old inflammatory thickening was again the seat of fresh inflammation, and, probably, by the introduction, through the adherent bowel, of the putrefactive bacteria, an abscess was readily formed, which found an easy growth in the already diseased tissues.

I think this abscess remained a local abscess up to the last ten or twelve days of the patient's life, and though it pressed upon the kidney behind, and involved it in its wall, it did not infect the patient until it had made its way by a small track into the substance of the spleen, which formed its anterior boundary. The pus now directly entered the circulation on or about the 10th December, and by the vena portæ was carried embolically into the liver, where it produced thousands of secondary small abscesses, and these again, through the hepatic radicles, became the infecting media of the lungs.

The interval between the embolic infection of the liver and that of the lungs subsequently must have been very short, as the jaundice and enlargement of the liver, and the occurrence of expectoration of pus, were all noticeable about the same day, the 15th December.

Murchison gives the course of cases of pyæmic abscesses of the liver as two to three weeks, and not exceeding three months, in duration. The much shorter duration in my case may be justly attributed to the previous cachectic and emaciated condition induced by the morphia.

In conclusion, this case, if it does nothing more, adds another confirmation to the grave consequences which, perhaps many years after the primary lesion, may follow on peritoneal inflammation, however limited in size it may originally have been.