demands not one whit less of care as to antiseptic precautions than is required of one before opening the abdomen, we shall get no further forward. When the practical obstetrician realizes his responsibility, and that no small share of this terrible maternal mortality of a certainty lies at his door, he has made the first step towards true progress. When he realizes that labour is a natural process which in the great majority of cases it is criminal to disturb; when he realizes that every interference increases the inherent danger a hundredfold; and when under this consciousness he brings with him to the lying-in room all that is possible of those principles of antiseptic surgery which have been at the bottom of the triumphs of modern gynaecology, we shall not have long to wait for the lightening of the dark cloud which hangs over us now."

And with these weighty words of my deceased friend I must conclude. I trust that, the mortality from puerperal fever in Great Britain being what it is, you will not think it has been either ill-timed or out of place to recall that noteworthy chapter in the history of the subject of which it has to-day been my great privilege to speak. No sermon can be considered complete without at least a few words of application, and so I feel sure I shall be forgiven for attempting to apply the lesson of Holmes's essay to the circumstances of to-day, and to show that there is needed now, as there was needed then, a strong voice to rouse us from our lethargy, and to plead with desperate earnestness for the lives that are still being quite unnecessarily sacrificed.

"If," says Dr James Jamieson, "anything in the field of practical medicine can be taken as proved, it is that puerperal fever is a preventable disease, and the means of prevention at our disposal are both more reliable and more easily accessible than in the case of almost any other of the infectious diseases."* If that be true, and I for one firmly believe it is, surely we ought not to be satisfied until puerperal fever has been banished from amongst us.

NOTE.—The references, necessarily numerous, are omitted here owing to exigencies of space. They will, however, duly accompany the address when it is printed in pamphlet form.

APPENDIX.

Conclusions, including rules for preventing the spread of puerperal fever by infection, published at the end of Holmes's Essay (1843):

1. A physician holding himself in readiness to attend cases of midwifery should never take any active part in the post-mortem examination of cases of puerperal fever.
2. If a physician is present at such autopsies, he should use thorough ablution, change every article of dress, and allow twenty-four hours or more to elapse before attending to any case of midwifery. It may be well to extend the same caution to cases of simple peritonitis.
3. Similar precautions should be taken after the autopsy or surgical treatment of cases of erysipelas, if the physician is obliged to unite such offices with his obstetrical duties, which is in the highest degree inexpedient.
4. On the occurrence of a single case of puerperal fever in his practice, the physician is bound to consider the next female he attends in labour, unless some weeks at least have elapsed, as in danger of being infected by him, and it is his duty to take every precaution to diminish her risk of disease and death.
5. If within a short period 2 cases of puerperal fever happen close to each other, in the practice of the same physician, the disease not existing or prevailing in the neighbourhood, he would do wisely to relinquish his obstetrical practice for at least one month, and endeavour to free himself by every available means from any noxious influence he may carry about with him.
6. The occurrence of three or more closely connected cases, in the practice of one individual, no others existing in the neighbourhood, and no other sufficient cause being alleged for the coincidence, is prima facie evidence that he is the vehicle of contagion.
7. It is the duty of the physician to take every precaution that the disease shall not be introduced by nurses or other assistants, by making proper inquiries concerning them and giving timely warning of every suspected source of danger.
8. Whatever indulgence may have been granted to those who have heretofore been the ignorant cause of so much misery, the time has come when the existence of a *private pestilence* in the sphere of a single physician should be looked upon not as a misfortune but as a crime, and in the knowledge of such occurrences the duties of the practitioner to his profession should give way to his paramount duties to society.

* Childbirth Mortality in the Australian Colonies, *Australian Medical Journal*, October 15th, 1887.

Clinical Remarks

ON

SOLITARY NON-PARASITIC CYSTS OF THE LIVER.

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ALL cysts in the pathologic limitation of the term arise in pre-existing epithelium-lined spaces and ducts: even ducts and canals of microscopic proportions are often the source of cysts of such dimensions that they cause so much inconvenience and distress as to necessitate surgical treatment. This may be illustrated by the liver, an organ thoroughly permeated by minute passages—the bile canals.

Two forms of cysts are found in the liver arising from its canals and ducts, namely, multiple cysts and the solitary cyst. Each will be separately considered.

Fig. 1.—A liver shown in section. The spaces on the cut surface are dilated bile canals. From a woman 46 years of age. (Museum of the Royal College of Surgeons, London.)

1. MULTIPLE CYSTS.

This variety has long been recognized by pathologists under the term general cystic disease of the liver. In typical examples the liver is converted into a huge honeycomb-like mass (Fig. 1). The cavities vary greatly in size—some are as small as grape-seed, others may exceed a ripe cherry in size. The cysts may project on the surface of the liver, but though this organ may be enormously enlarged, and weigh 35 lb., yet its shape is preserved. The smaller cysts are lined with epithelium. This is best seen in specimens with the cystic change in an early stage when the dilated canals look like sharp definite punctures in the liver substance. As the cysts increase in size and number the hepatic tissue is encroached upon, and appears as narrow bridges between large tracts of

honeycomb, but by degrees these become broken up by absorption, and then the remnants of the normal hepatic tissue appear as islands on the cut surface of the liver.

The microscopic characters of the cysts when examined in the early stages prove that they arise in the bile canals, but no investigator has succeeded in ascertaining the cause of this disease, or in associating it with obstruction to the escape of bile. The most remarkable circumstance connected with general cystic disease of the liver is its occasional association with general cystic (congenital) disease of the kidneys, a condition due to ectasia of the uriniferous tubules. The cause of this cystic disease in the liver is even more uncertain than that in the kidneys.

This general cystic disease of the liver causes great enlargement of the organ, but is painless, causes no jaundice, presents no diagnostic features, and comes invariably as a *post-mortem* surprise. On the other hand, it will be seen that the solitary cyst, though obvious during life, has so far been a clinical puzzle.

2. SOLITARY CYST OF THE LIVER.

All writers are unanimous that a solitary non-parasitic cyst of the liver is rare; nevertheless it occurs, and causes, when large, great perplexity in diagnosis.

The best example which has come under my notice occurred in a lady, aged 75 years, who was placed under my care by Mr. Charles J. W. Pinching of Gravesend. It had been noticed five years, and appeared in the epigastrium as a swelling about the size of an apple. This lump grew slowly and painlessly until it attained the dimensions of a man's head and became troublesome. Clinically it resembled a tumour, or cyst, growing between the layers of the mesentery, and was regarded by one physician who saw the patient as an ovarian cyst. When exposed by a free incision in the middle line of the abdomen it appeared as an extremely thin-walled translucent cyst growing out from the lower border of the left lobe of the liver, and without any communication with the gall bladder, which was normal. The peritoneal investment and the capsule of the liver were continuous with the cyst wall. The cyst contained 2 pints of brownish neutral fluid, specific gravity 1007, containing a small quantity of blood, scanty solid matter with negative characters, and free from sugar. By incising the capsule at its junction with the liver, I succeeded in completely enucleating the cyst. The bleeding vessels in the raw surface of the liver were easily controlled by ligatures of thin silk. The flaps consisting of liver tissue were carefully brought together by means of silk sutures, and the apposition of the flaps was made more complete by a continuous suture along the free edge of the liver. A thin gauze drain was introduced, and the incision closed with a single layer of silk sutures. The patient quickly recovered. The microscopic examination of the cyst wall, which was made by Mr. Cuthbert Locker, furnished the following facts: Sections taken from the cyst wall where it joined the liver exhibited small loculi invested with epithelium. Many biliary ducts were also detected lined with cubical cells. The main cyst-wall consisted of fibrous tissue, and its inner surface presented spaces covered with flattened epithelium. In some parts of the cyst-wall liver substance could be distinguished.

This large cyst in all probability arose from the dilatation and fusion of bile ducts. In general characters, and especially in its relation to the free border of the liver, the cyst corresponded exactly with that represented in Fig. 2. In this excellent example the capsule of the liver passes over the cyst, the wall of which is composed of fibrous tissue lined with a regular layer of flat epithelial cells. The fluid in this cyst was clear, alkaline, straw-coloured, specific gravity 1008, and contained much albumen and chlorides, but not a trace of bile.

The literature of solitary non-parasitic cysts of the liver is very scanty, and the few records have been collected by Doran, who has also described an example under his own care which he treated by incision and drainage. He was not able to obtain any portion of the cyst wall for histological examination, and as far as my reading goes the specimen which forms the subject of this communication is the first which has been examined in this way by a competent pathologist. It is difficult to explain the origin of the solitary hepatic cyst, but attention may be drawn to the following points: The six examples of which we possess records occurred in adult women. It is noteworthy that the liver of many women presents along its free border a variable strip of thin atrophied tissue which looks almost white in contrast with the dark hue of the normal liver. Many observers, myself

among them, attribute this atrophy of the free border of the liver to the pressure of stays; whether this be true or not, it is in this pale thin strip of liver that the solitary non-parasitic cyst arose in my patient, and it is due to the dilatation of the bile ducts in this tissue; the dilated ducts subsequently fused to form larger spaces, much in the same way that cystic spaces arise in a cavernous naevus from the fusion of adjacent blood vessels composing the primary naevus.

Fig. 2—A cyst (non-parasitic) growing from the free border of the liver. Obtained *post mortem* from a woman 38 years of age. (Museum of the Royal College of Surgeons.)

In regard to treatment the method I adopted appears to be novel and radical, but it was justified by a speedy and satisfactory convalescence, and this is more encouraging when compared with the method of incision and drainage adopted by other surgeons. Thus in Doran's patient the sinus persisted even seven months after the operation, and Müller's patient, although much of the cyst wall was cut away at the time of the operation, required four months to heal.

Special treatises on hepatic diseases make no mention of the solitary (non-parasitic) cyst of the liver, but there is now sufficient evidence to show that it is a clinical entity and may require surgical treatment. It is noteworthy that in the few cases which have been recorded the patients were women. Some cysts contained a clear fluid, one bile (Doran), and others blood.

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SOME REMARKS ON

A CASE OF ACTINOMYCOSIS OF THE LUNGS.*

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THE case which I wish to bring before your notice to-day is, I venture to think, of considerable interest, though also of considerable rarity—it is one of actinomycosis of the lungs. I wish to draw attention to it because I believe that these cases, though rare, are probably by no means so rare as is supposed. It is probable that such cases are often mistaken for tuberculosis, and may die and be buried without the mistaken diagnosis ever being corrected. The following is the account of the present case:

The patient is a healthy-looking young farmer in good circum-

* Read before the South Midland Branch of the British Medical Association.