pus; these were rather purulent infiltrations than abscesses, many of them softening down in the centre into much the same clear serous fluid as escaped from the side before the last opening was made: they varied in size from that of a nut to that of an egg. The larger one, which had been opened, presented a ragged interior, with walls of a dark-brown colour, and was traversed by several vessels of considerable size; but no opening could be found into the intestine. The colon, at the junction of its ascending and transverse portions, was firmly adherent to the under side of the right lobe. On laying open the large intestine, it was found to be in a state of dysenteric ulceration all over from the cæcum downwards; many of the ulcers having evidently been old ones, which had healed and left cicatrices. There were many points of deposit of pigment in the mucous membrane—apparently preparatory to further ulceration. No disease of any of the branches of the vena porta, or of the veins forming it, could be found. The left external iliac vein was laid open, and contained a soft grumous clot, quite separate from the internal lining membrane of the vein, which did not show any sign of inflammation. On laying open the inferior vena cava and two common iliac veins, a firm clot was found extending some way along the left common iliac vein, and quite blocking it up; and a clot extending down the right common iliac vein, but not so far as on the left side, and three inches up the inferior vena cava; but there, and in the left vein, it allowed the blood to pass.

ST. GEORGE'S HOSPITAL.

ABSCCESS OF THE LIVER AND LOIN, PUNCTURE OF THE FORMER; SECONDARY HEPATIC AND PULMONARY ABSCESSSES.

(Under the care of Dr. PAGE.)

OUR next illustration of hepatic abscess arose from quite a different cause to that in the preceding case, and would seem to have occurred by the extension of suppurative action from the right loin, arising, it is quite fair to assume, independently of the liver itself. What gives strength to this supposition is, that there was much bilious vomiting for some days before the appearance of the tumour beneath the right breast, and when the latter appeared it was very painful, and resembled an acute recent abscess, although these details are not mentioned in the notes of the case. Its termination was, however, similar to that in the previous case—namely, by secondary abscesses in other parts of the liver and also in the lungs, the effects of pyæmia readily engendered by the large amount of suppurating surface in the loin and liver together. We have availed ourselves of the notes of Dr. Dickinson, the medical registrar, and the account of the autopsy made by Mr. T. Holmes, curator of the museum at the hospital.

Mary C—, aged thirty-four, admitted June 8th, 1859. She stated that she had had good health until five months ago, when an abscess appeared in the neighbourhood of the loins; this opened, discharged a quantity of matter, and then healed. Eleven weeks ago a small round tumour showed itself just below the right breast. For some days before there had been much bilious vomiting. The swelling increased, and she became weak and emaciated. When admitted, there was a soft, fluctuating swelling occupying the lower part of the right side of the chest in front; this was about as large as a child's head. There was considerable pain about it. There was also a small opening in the loins, which did not discharge much; but when pressure was made above it, a little, not unhealthy, pus appeared. The tongue was dry; pulse weak, 90; bowels open.

June 9th.—The patient slept badly, and during the night vomited a quantity of bile. The pain was somewhat relieved by the application of a liniment of opium; good diet was given, with some wine. In the evening a well-marked rigor occurred.

10th.—The tumour was now opened by Mr. Caesar Hawkins, and thirty-eight ounces of very foetid matter allowed to escape. Mr. Hawkins was inclined to consider the abscess as in the parietes, and not connected with any of the viscera. The wine was increased to eight ounces.

Next day the tongue was drier, the pulse weaker, and the skin was cold and clammy. During the night another rigor had occurred.

13th.—There was still some enlargement about the right

hypocondrium, with tenderness. The tongue was glazed, and there was no appetite; nothing was taken but wine and beef-tea. A cinchona draught, with aromatic spirit of ammonia, was now given three times a day.

15th.—The throat was said to be sore, but nothing could be seen, and the patient's state generally was much the same.

On the night of the 17th, there was a severe attack of shivering, and in the morning the countenance was anxious, and the pulse more feeble; the tongue was glazed. The abscess continued to discharge freely.

On the 20th, there was more shivering; some matter, apparently purulent, was expectorated, and the woman appeared to be sinking.

Next day (21st), after another fit of shivering, she died.

Autopsy, twenty-five hours after death.—The body was somewhat emaciated. A sinus existed in the back, at the lower part of the right loin, which led amongst the muscles towards the crista ili, but did not expose any bone. There was an opening made, during life, below the cartilages of the ribs on the right side, into a large abscess situated between these cartilages and the skin. On laying open this cavity, several apertures were found in its posterior wall, leading, some of them between, others below, the cartilages of the ribs, into a circumscribed cavity situated between the liver and diaphragm; and from the bottom of this cavity, again, the probe passed down directly into the substance of the liver. This cavity in the liver was filled with pus, and there were numerous other abscesses, evidently of pyæmic origin, in the liver, which were filled with foetid pus, and some of them presented a well-marked pyogenic membrane. The kidneys were smooth, and their capsules adherent. The spleen was of large size, but healthy.—Thorax: The heart was healthy. There were several secondary deposits, in their first stage, in both lungs, a few of which had softened and formed small abscesses. There was recent adhesion in the right pleural cavity near the apex, corresponding to one of these deposits, and there was some gelatinous lymph in its cavity.

ST. THOMAS'S HOSPITAL.

ABSCCESS OF THE LIVER FROM DYSENTERY IN A HOT CLIMATE; PUNCTURE EXTERNALLY; RECOVERY.

(Under the care of Dr. BARKER.)

IN the patient who was the subject of the following case, the history was clear, of dysentery in a hot climate, suddenly followed by pain in the side, then jaundice, and absence of bile in the motions. He was admitted with a tumour over the liver, the nature of which was readily made out. It was punctured, and some bilious pus evacuated. A recovery ensued in forty-four days.

For the abstract of the present and succeeding cases we are indebted to Dr. Stone, medical registrar to the hospital:—

A seaman, aged thirty-five, in Sierra Leone some years previously; had dysentery for eleven months, with great hæmorrhage from the bowels. During the continuance of this he was suddenly seized with a "stitch" in the right side, so severe that he rolled on the ground with pain. From that time he had slight jaundice and pipe-clay motions. On admission, he had an elastic, globular tumour projecting from under the right costal cartilages to about two inches above and outside the umbilicus. Its diameter was about four inches either way. It could be felt to fluctuate, and was made tense by the act of respiration. It was readily made out as an hepatic abscess. Thirteen days afterwards it was punctured, and fifteen ounces of pus evacuated, which had a biliary colour and smell. He recovered in forty-four days.

ABSCCESS OF THE LIVER FOLLOWING HEPATITIS; EVACUATION BY PUNCTURE AND BY THE BOWELS; RECOVERY.

(Under the care of Dr. RISDON BENNETT.)

It is probable that acute hepatitis, in the first instance, gave rise to the formation of abscess in the following case, for the mere passage of blood by the rectum does not necessarily constitute dysentery. It is well known that in inflammation of the liver all the symptoms are not invariably present. There were here severe epigastric pain, vomiting, jaundice, and blood by stool. This last may have depended upon impediment to the free transmission of the blood through the portal venous system, in consequence of the inflamed state of the liver.

At any time an hepatic abscess is a very grave complication, and its gravity is often enhanced by the nature of the cause producing it. Fortunately, the course of the abscess is commonly towards the external surface of the body, as in all the cases we give to-day, and in two only of which recoveries ensued. When it bursts into the alimentary canal, it may do so either through the excretory ducts of the liver, if laid open by ulceration, or it may directly pour into some part of the bowel itself, which possibly was the case in the present instance:—

An Italian organ-grinder, aged thirty-eight; twelve days before admission, he had vomiting, epigastric pain, jaundice, and passage of blood per anum. When admitted, his countenance was anxious, and there were much pain and tenderness in the right hydochondrium. At that spot there were some fulness and hardness, which steadily increased for a hundred and nine days, accompanied by severe feverish symptoms. Here a puncture was made, and six pints of very foetid pus removed. A few days later, a second spontaneous evacuation of pus per anum occurred. Disappearance of the tumour and complete recovery ensued in a hundred and ninety-seven days from the period of his admission.

ROYAL SOCIETY.

THURSDAY, FEB. 2ND, 1860.

SIR BENJAMIN C. BRODIE, BART., F.R.S., PRESIDENT.

ON THE SACCHARINE FUNCTION OF THE LIVER.

BY GEORGE HARLEY, M.D.,

PROFESSOR OF MEDICAL JURISPRUDENCE IN UNIVERSITY COLLEGE, LONDON.

THE author related a number of experiments which he had performed, in concert with Professor Sharpey, in the Physiological Laboratory at University College. The results of the experiments did not in any way countenance the notion, that sugar is not produced in the healthy animal body; but on the contrary, such conclusions as they afforded were altogether in favour of the following generally received views upon the subject:—

1. Sugar is a normal constituent of the blood of the general circulation.
2. The portal blood of an animal fed on *mixed* diet contains sugar.
3. The portal blood of a *fasting* animal, as well as that of an animal fed solely on *flesh*, is devoid of sugar.
4. The livers of healthy dogs contain sugar, whether the diet be *animal* or *vegetable*.
5. Under favourable circumstances, and with proper precautions, saccharine matter may be found in the liver of an animal (a dog) after three entire days of rigid fasting.
6. The sugar found in the bodies of animals fed on *mixed* food is partly derived directly from the food, partly formed in the liver.
7. The livers of animals restricted to flesh diet possess the power of forming glucogene; which glucogene is, at least in part, transformed into sugar in the liver.
8. As sugar is found in the liver at the moment of death (even when the plan of freezing it has been strictly attended to), its presence cannot properly be ascribed to a post-mortem change, but is to be regarded as the result of a natural condition.

An interesting discussion followed the reading of the paper, in which Sir Benjamin Brodie, Dr. Sharpey, Dr. Carpenter, Mr. Huxley, Dr. O. Rees, Dr. Pavy, and Dr. Harley took part.

Medical Societies.

MEDICAL SOCIETY OF LONDON.

MONDAY, JAN. 30TH, 1860.

MR. HILTON, F.R.S., PRESIDENT.

DR. RICHARDSON read a paper on the

STUDY OF DISEASE BY SYNTHESIS,

illustrating his argument by reference to the nature of inflammation, and the artificial production of inflammatory disease. The first part of the paper was devoted to a description of the mode in which synthesis might be applied in medicine, to-

gether with the history of the manner in which it had already proved useful, although directed by no systematized line of research. In the next place, the author indicated a systematic course for such inquiry, and divided diseases for this object into six great classes—viz., the parasitic diseases; the zymotics; diseases the primary origin of which is in the nervous system; diseases where from disordered chemistry a new growth is evolved out of the materials of the body (malignant diseases); diseases of simple degeneration—i. e., of misplacement of natural constituents of the organism; and, lastly, inflammation. The author then pointed out with great care the animals which might be properly subjected to synthetical experiment—i. e., to induced diseases; and, fourthly, he passed to the narration of his own experiments for the production of endocarditis by the introduction of lactic acid into the system, and by the generation of the acid in the system.

The following were the three inductions with which Dr. Richardson concluded his communication:—

1st. The results of his experiments taught, as fully as experiment can teach, that the hypothesis of Dr. Prout, as to the origin of rheumatism, was essentially correct. In course of time, Dr. Richardson thinks it probable that some modification of view may be offered as to the nature of lactic acid and its relationship to the economy. But the broad fact of the origin of the local disease, under the influence of the specific acid poison, will remain as ever. If the question should be asked, why, on the supposition of such a cause for a specific disease, the so-called predisposing and exciting causes play so important a part, Dr. Richardson's reply would be, that the results obtained give an insight into the meaning of the terms "predisposing" and "exciting" which they never had before. A man may absolutely live on a diet which is predisposing to the disorder. He may have an error in digestion which shall predispose him to other disease. But such a man may live on, and may suffer no acute mischief, so long as his excretory functions are perfect; so long as he can burn off the poison in the respiratory changes, or eliminate it in fluid excretions. But the excretions of this man, checked in the skin, in the lung, in the kidney, and therewith more or less in all these organs, are an exciting cause, and the poison accumulates, floats round with the arterial blood, and wherever it finds a favouring point excites the local change—inflammation.

In the second place, the results related by Dr. Richardson were, he said, of interest, as indicating new lines of inquiry for every other form of local inflammatory change. It may be that every local inflammation we know of, as due to internal causes, is the result of an agent similar in character to the one used by him—an agent not absolutely foreign to the body, and not hurtful to the body when present in the normal proportions (for lactic acid is innocent enough as a natural constituent for muscle), but truly poisonous when, accumulating, it pervades tissues to which it is foreign.

Dr. Richardson observed it would be fair science indeed, with so distinct a suggestion before us, to take an empirical survey of the action of all the organic acids of the economy; but it would be most direct as a primary step to ascertain the nature of the various products eliminated in locally inflamed parts, and to test their influences in quantity on the economy. For an example, in the fluid matter excreted under the epidermis in erysipelas, what is present? The fluid has an acid reaction, and excoriates where it flows. Dr. Richardson added, that when he had learned the nature of the active principle here, he might expect to induce erysipelas as he had induced endocarditis.

The third and last point to which the author referred touched on the question of the general or local origin of inflammation. He remarked that the common sayings, "inflammation is a blood disease," that it arises "from a perverted nutrition," and the like, while they are terms expressing a kind of unsophisticated truth, are far too vague to become established arguments, and sink into doubt altogether before the reasonings, partly brilliantly correct and partly brilliantly absurd, of the ingenious Virchow and his local origins. He hoped the observations he had been enabled to make had come in just at the right time, to explain what is general and what is local in an inflammatory act. He would put the position in the simplest terms at his command. Granting that a surface of skin or mucous or serous membrane is uninfluenced by any extrinsic or intrinsic influence,—the truism must be premised childish as it is,—the part does not inflame. Bring externally to that part a foreign substance,—acetic acid, formic acid, mustard, a blister, hot water,—and the part undergoes local changes, into which there is no need to go further than to urge that those changes, capillary and exudative, are purely local. The general condi-