Dr. Wickham Legg's Bradshawe Lecture on Cardiac Aneurysm²⁴ is a most valuable contribution to our medical literature, and one of very considerable importance as regards my present subject, because in discussing the etiology of "fibroid disease" he differs from the views of Huber and Cohnheim. He makes no mention of Weigert's paper on Coagulation Necrosis, in which the theory was first promulgated, and which was published the year before Cohnheim's on the Results of Obstructing the Coronary Arteries of the Heart. His first objection is as to the age of Huber's patients, and he mentions several young persons who had the disease, and in whom the coronary arteries were reported healthy. Now, in going over cases of this disease, I have been struck by the fact that in very many the state of the coronary arteries is not mentioned at all, and unless there be a specific statement, at least in the earlier recorded cases, I think we are justified in concluding they were not specially examined. His next objection is that in a case of Greenfield's the orifices of the arteries were obstructed without producing any result, except generalised molecular fatty change. Now, I am strongly of opinion that a distinction must be drawn between cases where the orifice is obstructed and cases where individual branches are occluded. In the former class of case, I think, resulting fatty degeneration is the rule. His next objection is as to the anastomosis of the cardiac coronary arteries, and this objection I will examine further on. As has been observed, the paper is a most valuable one, and the views of so careful an observer must be thoroughly taken into account, in order to arrive at any conclusion as to the true nature and cause of this interesting disease.

I have thus endeavoured to give some account of the history of our knowledge of fibrous transformation of the heart. In addition to the articles noticed above, several important papers, some of them of great clinical interest, have recently appeared, but space forbids me to do more than simply mention them. Thus we are indebted to O. Rosenbach,²⁵ E. Leyden,²⁶ Albert Robin,²⁷ C. Paul,²⁸ and others.

In Dr. Byrom Bramwell's large recently published work on Diseases of the Heart, the subject of fibroid degeneration is included in the chapter on chronic myocarditis, "which," he says, "for practical purposes may be considered as synonymous with fibroid degeneration." In the long account of the etiology and pathology of the condition, not a hint is given of the possible direct connexion which this lesion may have with disease of the coronary arteries or obstruction of these vessels. The author points out, however, that long-continued venous engorgement of the heart-wall may have an influence in its production, and this statement is of importance in connexion with Sir William Jenner's paper, to which I have already referred. The absence of any reference to the causal influence of the coronary arteries in so large and valuable a work shows that the true etiology of a large section of such cases has not as yet been fully comprehended. I do not wish to assert that an abnormal condition of the coronary circulation is the cause of all fibroid conditions of the heart. Far from it; but so far as my experience and that of many others go, it is directly responsible for a very large number, in which anything of the nature of an inflammatory course of events cannot come into court. It is also further obvious that to many cases the term "chronic interstitial myocarditis" cannot logically or scientifically be applied. I am decidedly of opinion that the influence of the coronary arteries in producing many of the well-known lesions of the myocardium has not been sufficiently recognised, and if the publication of the present lectures has the effect of directing greater attention to these vessels among English physicians and pathologists my purpose will have been amply fulfilled. In Dr. Bramwell's article on "Aneurysm of the Heart" its association with fibroid change is fully recognised; and in the account of the author's case of rupture of the heart it is pointed out that the branch going to the ruptured area was obstructed. It is therefore somewhat strange that the great importance of the coronary arteries in all affections of the myocardium should not have been more clearly stated and strongly insisted upon.

²⁴ Some account of Cardiac Aneurysms. Being the Bradshawe Lecture, read Aug. 18th, 1883, by Wickham Legg. London: J. and A. Churchill. 1884.

²⁵ Centralblatt für die medicinischen Wissenschaften, 1886, No. 38, p. 678.

²⁶ Ibid., 1884, p. 651.

²⁷ Sur les Ruptures du Cœur. Gaz. Hebdom. de Méd. et de Chirurg., Dec. 18th, 1885, No. 51, p. 829.

²⁸ Aneurysme du Cœur. Gaz. Hebdom. de Méd. et de Chirurg., March 6th, 1885, No. 10, p. 165.

A CASE OF TYPHLITIS.

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AND

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THE following case of acute inflammation of the vermiform appendix, succeeded by perforation, general peritonitis, and death, seems not unworthy of being placed on record.

Percival T—, aged twenty, a clerk, was first seen on Saturday, Oct. 22nd, at 6 P.M., and found on his back in bed with legs drawn up, face expressive of anxiety and suffering, and complaining of pain and tenderness in his abdomen and inability to pass urine; the pain was obviously of a rhythmical or griping character, and during the paroxysms the face was distorted and the hands pressed to the sides of the abdomen.

The history obtained was as follows: He was an accomplished athlete, but had not attended the gymnasium for some months, till on the evening of Oct. 19th he indulged in a prolonged course of gymnastic exercise, and recalls distinctly a fall on his abdomen across the parallel bars, which was followed by a feeling of sickness and giddiness. He felt a little stiff and sore about the abdominal muscles after his exertions, and as this feeling did not pass off, he took the next evening (20th) a couple of rhubarb pills, which produced a slight watery evacuation the following morning (21st), but did not relieve the pain. On this day the abdominal pain became gradually more intense, and was referred mainly to the hypogastrium; he felt cold and inclined to shiver, and had a frequent desire to micturate, but could not always succeed in passing any urine. There had been no sickness. Early in September he had sought advice on account of some indefinite pain in the right side, but from this he seems to have completely recovered. With this exception he has always enjoyed robust health. His father died at the age of fifty-six of (?) consumption. His mother is gouty and emphysematous.

On examination his abdomen was found to be uniformly, though slightly, distended and tympanitic, more or less tender all over, and especially painful over the hypogastrium. Tongue large, moist, flabby, and coated with a thick creamy fur. Pulse large and bounding. Skin moist. Has passed flatus freely and been somewhat troubled with flatulence. Has passed no urine for the previous twelve hours, but the bladder does not seem distended. Ordered poultices to abdomen, and small quantities of beef-tea, milk, and ice. To take fifteen minims of nepenthe every four hours. In the evening he passed a small quantity of high-coloured urine with difficulty, had some tenesmus, but only passed a small quantity of flocculent fluid.

October 23rd.—Restless last night; slept, but perspired very freely. Abdomen measures thirty-one inches round umbilicus; less tender; coils of intestine can be felt through the abdominal walls. Pulse weaker, but still full. Temperature 101·8°. Has been slightly sick after beef-tea. Much troubled with flatulence and tenesmus. Has micturated once only, but urine not obtainable for examination. Very thirsty. Profuse perspirations continued throughout the day.

24th.—Seen in consultation with Dr. Goodhart. In much the same condition as on previous day, but weaker. Pain is now chiefly referred to the left groin and flank. The abdomen is much distended and tense, although he has not now any of the pinched expression of peritonitis; nor is the abdomen markedly tender on palpation. The intestinal coils are visible, and we were inclined to think that peristalsis was palpable, but of this we were not quite sure. The urine is still passed with difficulty, and contains a trace of albumen. The rectum contains scybala. The heart and lung sounds are normal. Temperature 100°. Pulse 100, full, anything but peritonitic in its characters. He has not been sick for some hours. Tongue flabby, with thick creamy fur; sweating profuse and rather sour. Fifteen grains of salicylate of soda to be added to each dose of medicine. A small enema of warm water returned, bringing with it much flatus, and giving great relief; another given four hours subsequently brought away a few scybala.

25th.—Decidedly worse. Meteorism marked. Sickness very frequent and violent; vomit gradually becoming distinctly stercoraceous. Occasional slight hiccup. Tongue small

and dry. Same trouble with urine; catheter drew off only two ounces. Sweating ceased. Pulse small; temperature 99° . He was given a hypodermic injection of morphia (one-third of a grain) at 6 and 10 P.M., and nutrient enemata every third hour, at first with considerable benefit.

26th.—The vomiting and meteorism subsided, but symptoms of collapse, with cold extremities, jactitation, sighing respiration, &c. supervened, and death ensued at 6 P.M.

Examination of abdominal cavity, fourteen hours after death.—A few greatly distended coils of intestine, small and large, filled the abdomen. The whole of the peritoneum was dull and injected—the visceral portion in definite lines, the parietal more irregularly; omentum reduced to a mere shred; coils of intestines slightly adherent to one another through the medium of a glutinous stringy material. These appearances were but slightly marked in the upper portion of the cavity, but increased in intensity from above downwards. In the pelvic cavity the whole of the contained viscera was matted together by means of a layer of tough whitish-grey lymph the thickness of blotting paper. A little thin purulent material of (?) faecal odour was contained in the pelvis. The appendix vermiformis was of a deep purple colour, in great contrast to the semi-transparent intestines, and slightly distended. About its middle there was a small circular opening with everted sloughing edges, communicating freely with the bowel on the one hand and the general peritoneal cavity on the other, and large enough to admit the tip of the little finger. From the point of contact of this opening in the appendix with the adjacent peritoneum, to which it was very slightly adherent, the inflammation appeared to spread mainly downwards, but also over the whole peritoneal surface. Permission to examine the other viscera could not be obtained; but no signs of tubercle could be made out, nor were the abdominal glands enlarged.

On closer examination the specimen shows a very intense inflammation of the entire appendix. From the orifice of the ulcer, which is situated about the middle of the appendix, the mucous surface is an ashen grey, and sloughy. It is apparently part of this that has given way; the remainder is intensely injected. It contains nothing. The caecum is healthy, and the ileum also. In the latter the patches are congested, but not swollen; and the colour is, one may suppose, due to the disturbance of circulation owing to the neighbouring severe inflammation.

Remarks by Dr. GOODHART.—This case is quite a common one, but we think it worth recording because it is so instructive in several ways. And first of all in this, that we consider it to traverse, in a way well worth remark, a statement of Dr. Hilton Fagge in his in many respects inimitable work on Medicine. Dr. Fagge writes: "I have indeed a strong conviction that no case in which the disease can be diagnosed as being seated in the caecum ever terminates fatally if judiciously managed.....Even when typhlitis presents itself clinically under the guise of intestinal obstruction or of diffused acute peritonitis, I believe that it scarcely ever destroys life if judiciously treated." Far be it from us to attempt in any way to minimise the importance of treating these cases by opium, nutrient enemata, or fluid food, and the avoidance of purgatives. Many a case has certainly been killed by the incautious administration of an aperient. But it cannot be too much insisted upon that these cases are excessively treacherous as regards their symptoms. There were times in the course of the illness in this case when the symptoms were not by any means decisively peritonitic; when all vomiting—by the bye, never very urgent until death was imminent—had ceased; when he had a full pulse and thickly furred tongue, as of some acute febrile disorder. Moreover, it will be within the experience of some of us, no doubt, that typhlitis sometimes presents itself under the guise of a severe pyrexia, so that it has been mistaken altogether for typhoid fever. I have seen several such only cleared up at the post-mortem; and were I to write an article on typhlitis, it would certainly be my business to insist that it is a question in a certain proportion of cases whether they die by the febrile disturbance of the inflamed gut or by the collapse of the peritonitis. And it is very important to insist upon this in the present day. If one were to say nothing about the case, and simply to expose the ulcerated appendix that was removed after death to the light of our knowledge of surgery, without doubt it would provoke the remark, "What a pity the abdomen was not opened and the appendix removed," and we have no wish to turn away from that aspect of the case. One should always be on the look out for localising symptoms in these cases which

may enable us to attack them surgically; but I am equally sure from a long experience, and this case bears it out, that in a large number it is impossible to come to any sufficiently definite opinion; and it is impossible to suggest so serious an operation as opening the abdomen unless one can be fairly positive. Even when so there will still be some where the febrile disturbance steps in to unsettle the decision, and I am by no means sure that this is solely the consequence of the disease of the appendix or that it would be dissipated by the removal of that viscus. We discussed these points at the bedside of this poor patient, and we neither of us had any doubt that, whatever might be the cause of the peritonitis, there was nothing at that time that precluded recovery—I personally thought things looked most favourable—and nothing in the symptoms that would allow of our entertaining the idea of opening the abdomen. Thus it is with many another case. Now everything looks hopeful, hardly even critical, and an operation has not come within the horizon; a few hours pass by and the patient is moribund, and the sun of surgery for that case has set. And that is the difficulty of practice.

One word may be added concerning the pain in peritonitis: it is an exceedingly treacherous guide to the localisation of the malady. Others have noted that with disease in the region of the caecum the pain may yet be experienced chiefly in the left groin, and so at one time it was in this case. The early and persistent inability to pass urine is also worthy of remark. It is a symptom of peritonitis that is well known as an occasional occurrence, but in this instance was peculiarly marked, and in conjunction with the pain at one time present on the left side might well have caused a mistaken diagnosis.

ALBUMINURIA IN THE APPARENTLY HEALTHY.

By ALEX. W. STIRLING, M.D., C.M.

THE following notes are taken from a paper presented as an M.D. graduation thesis to the University of Edinburgh in the beginning of May. In it I considered the cases of albuminuria of the apparently healthy which had already been published, the experiments which had been made and the reasons why few of them were of value, as well as the theories which had been advanced in connexion with the subject; but in the space now at my disposal I am able to introduce only a brief notice of some of the points there discussed more fully.

Table I. will give at a glance the general results of observations made on the occurrence of albuminuria among boys. The greatest care was taken that no error should spoil the results, and at least four different reagents were used to test each specimen of urine, no urine being passed over till I was completely satisfied whether a precipitate were albumen or not. The reagents used were: (1) Heat and acetic acid, which I prefer to any of the others. There is little fear of making the solution too acid in these cases. (2) Nitric acid in the cold. (3) Roberts' brine test, sulphate of magnesia and nitric acid. (4) Picric acid. Also, sometimes, (5) potassium mercuric iodide, and (6) ferrocyanide of potassium. But the first four were used for every urine, and were added by means of pipettes. The boys concerned in this special investigation belong to one of the large training ships on the Thames, and only those in good health were examined. The urine was passed always at 9 A.M., about three hours after rising, at which time albumen will almost certainly be discovered if present at all during the twenty-four hours. It was found in 77 of the 369 boys examined, and I ascertained by several subsequent experiments that, speaking generally, it was not a passing condition, but present at the least for months. The quantities of albumen varied from a slight cloud to one-sixth of the column in the test tube, and in one case—not, however, one of the ship boys—I have seen on several occasions as much as one-half. The urine was generally pale and watery; the specific gravity averaged about 1020; the reaction varied from neutral to strongly acid; deposits, except urates, were rare, though uric acid and oxalates were sometimes present. A considerable number of specimens were examined for tube casts, but with the exception of once or twice, when hyaline casts were doubtfully present, none have been