CLINICAL LECTURE
ON
ACUTE HODGKIN'S DISEASE.

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HODGKIN'S DISEASE, or pseudo-leucocytoma, runs as a rule a more or less chronic course, and the diagnosis—especially of that form in which the superficial glands are chiefly affected—is easy enough. Occasionally, however, it may run an acute, and sometimes a very acute, course, and the superficial glands may not become involved; then the diagnosis is not so easy. As, during the last few months, there have been several cases of acute Hodgkin's disease in our wards, many of which have been under my care I will single out two, which ran a rapid course.

Case I.—J. P., aged 23, repairer of gasholders, was admitted into the infirmary on November 14th, 1891, and died five days after admission. He had been seen before by Dr. Hope, who thought he had cholecystitis. Two weeks before his admission his temperature had been 100.40, and he had been several times in bed. His present illness came on, about a month before admission. He had always been in good health, and had had small boils on the arm, an hour, and pain in the right side of the chest; the cough became worse, and he began to lose weight. It was from his friends that he looked very pale, and was getting much thinner.

On admission the patient was found very anaemic and somewhat cyanosed, but there was no marked inspiratory or expiratory rales, crepitations, or rales. Dr. Hope's examination of the chest showed no abnormality of the chest. The voice was low and faint, the breath very rapid and laboured, 36 per minute; on percussion of the chest, slight dulness was made out over the right side, between the 3rd and 4th ribs and the sternum and ribs. The right side, from the first to the third costal space, the breathing in front was vesicular, with prolonged expiration on the right side, and numerous rhonchi were heard on both sides. The examination of the back of the chest showed dulness, with diminished fremitus and diminished breath sounds on the left side, and subcutaneous oedema over the right base. The breath sounds over the right apex behind were weaker than those over the left apex. There was slight expectoration of mucopurulent nature. The voice, the will to cough, and the desire for admission was very small, and could only faintly felt in the fifth intercostal space, about half an inch to the right of the nipple; the area of cardiac dulness appeared diminished, as the breath sounds were normal but very weak; the pulse was frequent, 120 per minute, small, regular, very compressible, and diicrotic; the pulse in both radial arteries was equal. The blood was a leucopenia of 1,000/č, and small. The leucocytes increased—1 leucocyte to about 40 red blood corpuscles; most of the leucocytes were small, mononuclear, and a few large, with large granules, were obtained with eosin in the mask. Ehrlich's method modified by Müller—a few eosinophilous cells were found; a few contained numerous whitish, brown; the spleen was not spongy, the abdomen normal in appearance; there were no enlarged superficial glands; the liver was normal as regards its dimensions; the skin was somewhat enlarged in its vertical diameter; there was no anorexia; no nausea or vomiting; the bowels were confined. The nervous system presented nothing abnormal. The urine was acid, specific gravity 1018; it was pale and had a deposit of urates, which, owing to the want of colouring matter, was only very slightly tinged pink; it was free from albumen and sugar.

The diagnosis was acute Hodgkin's disease with leucocytoma and left pleurisy. The diagnosis was based on the presence of medicinal growth, of the profound anaemia, pyrexia, and of the enlargement of the spleen. The leucocytes of the blood were increased, but not to such an extent as is found in leucocytoma; the dyspnoea began at once; the temperature ranged between 96.5 and 100.5; the patient became slightly delirious, and died on February 27th.

Case II.—W. R., aged 55, a farmer, was admitted into the infirmary on October 27th, 1891, and died on November 1st. The patient had had a severe cold in November 1890. He had an attack of what he said was typhoid fever, and never suffered from any serious illness till the present, which commenced about six weeks before admission. He had been living in the north of England, and had been away from home for the present illness, but about 40 miles from home. He had come down with pain in the limbs, and shivering, which was so severe that he had to take to his bed; he then had very severe pains in his back, and occasionally shovelling along the ribs or down the arms; he became very weak, and during the last fortnight suffered from bleeding from the gums. The condition on admission, was anaemic, and somewhat emaciated; complained of great pain in the back, which prevented him from sleeping. The temperature, 110.69, was not very high; there was no enlarged superficial glands; slight oedema of the lower part of the body; the patient was slight and pale, and weighed about 110 lbs. He had six brushes on the abdomen. His physical examination of the chest showed the left half elevated, and the edge could be distinctly felt; the spleen was also slightly enlarged, there was no evidence of any enlargement of the superficial glands; the abdomen was free, and not vomiting; constipation. Percussion of the spine was very painful over the whole lumbar region; patient could not rest himself on account of the pain. An examination of the nervous system showed nothing abnormal; the knee reflexes were slightly exaggerated; the patellar reflexes were suppressed; the jaw jerk was absent; there was no bulbar palsy, or any other motor abnormality; the pupils were small, and alkaline; contained no albumen, or sugar. Leucocytes increased, (1 leucocyte to about 100 red blood corpuscles), mostly small, and mononuclear; the red cells varied from 5,000,000 to 7,000,000. Eosinophile cells were found, (about two millions), poliocytes, microcytes.

The diagnosis was acute Hodgkin's disease, and the points which chiefly guided us in this diagnosis were the profound anaemia, the hemorrhage from the gums, and the enlargement of the spleen. Patient stated that he had been suffering from stomachosis, which we thought was due to be due to some enlargement of the mediastinal glands, and the excessive localized pain at the back to deposits of, or infiltration with, lymphocytic cells.

The treatment consisted in the administration of arsenic and quinine.

The patient became gradually weaker, the pain was not relieved either by the arsenic or morphine which was subsequently given to him, and he died somewhat suddenly on November 1st. That is, six days after his admission. His physical examination showed a distinctly remittent ascending type, the morning temperature being about one degree higher than the preceding evening temperature; the temperature curve, therefore, resembled very strongly that of the cholera morbus. Renvers in some other cases of Hodgkin's disease, representing half the cycle of the peculiar ascending and descending graph. The highest temperature was 1040, the lowest temperature, 101.00, and the heat of the axilla, 100.78. The eosinophile cells were found, with the leucocytes, to increase, and the albumen and sugar increased. The patient died on November 1st. The liver weighed 4 lbs. 8 oz., and showed numerous white deposits scattered over the surface. The lungs were thickened by a deposit of fibrin. There were no deposits; some of the mesenteric glands, were increased to the size of walnuts, and were white and soft; the pancreas normal, but the spleen very much enlarged. The glands in the hilum of the lungs were enlarged, but no enlarged glands were found immediately behind the sternum; the spleen, however, was very thick. No deposits were found in connection with the vertebral. The histological examination of the glands and metastatic tumours showed them to belong to the lymphocystoma. The examination of sections of the thymus and portions of the femur showed nothing abnormal to the naked eye.

By permission of my colleague, Dr. Bury, under whose care the patient was placed, I had the opportunity of dissecting the body, in which an instance of acute Hodgkin's disease where the superficial glands were principally implicated, and where the disease at first simulated acute farcy.

Case III.—The patient, a man, was admitted on November 27th, and died on December 4th. The patient stated that he had spent the greater part of his life in looking after horses; he attended many fairs, and often went to France and Germany to sell or buy horses. He had, at one time, been occupied with clipping horses, some of which suffered from what is called gland fever; he has never had gland fever himself. He had six brushes on the abdomen. The diagnosis was acute Hodgkin's disease.

On admission the patient was found to be anaemic; there was great dyspnoea on the least exertion, the right palpebral fissure and the right eyebrows were dilated; the conjunctivae were injected; the submaxillary glands were large; the tonsils were large, and weighed 16 oz.; on section it was found to be firm, the tra-
ness; the veins in the neck were distended, and the glands in the neck on both sides considerably enlarged; there was dulness over the right apex of the lung in front and extending to the second and third right intercostal space over the right side of the sternum, with bronchial breathing over the dull area; the patient was troubled with a sharp, short, metallic cough and profuse muco-purulent expectoration. The blood examination showed paralysis of the right vocal cord. The heart appeared somewhat dilated, the arteries were slightly increased in tension, the examination of the digestive tract and abdominal organs showed nothing abnormal; the spleen was not enlarged; the urine contained urates abundantly, but no albumen or sugar. The temperature was 101°F.

The diagnosis was acute Hodgkin's disease, the glands in the neck and mediastinal glands being chiefly involved.

During the few days he was under observation in the infirmary the breathing became rapid and irregular, the right lung being found to be rapidly increased, and over the upper part of the right lung in front the breath sounds were distinctly diminished. Two areas of dulness were diminished, with scattered subcutaneous rales, and the vocal fremitus was decreased; the same symptoms were noticed over the right lung behind, that is, dulness of the greater part, with bronchial breathing and increased fremitus above, whilst, below, beginning at the angle of the scapula, the breathing was feeble and the fremitus diminished. The rapid expiration increased in quantity. The pulse became very weak, and the temperature fell to normal. The prostration became very great, and the patient died on December 9th.

The treatment consisted in the administration of arsenic.

The post mortem examination, like those of the other two cases, was made by Dr. Keihm, who reports that I have a brief extract from his report.—Brain and head normal. Thorax: Upper part of mediastinum somewhat displaced backward, clavicles the seat of firm creamy-white growth. Growth also involves hilum of the lung and extends outwards, so that right lung is adherent to chest wall, and greater segment of the right lung almost completely solidified; upper lobe encased by and infiltrated with growth; lower lobe, the seat of supplicative pneumonia. The right bronchus, infiltrated below, ulcerates, with a gangrenous condition of the mucous membrane. Left lung and pleura are free from growth. The tissues on the right side is infiltrated and pressed upon by growth. Pericardium and heart are normal. Liver and spleen not enlarged, and show no growths. The mediastinal glands enlarged by deposit of growth. The kidneys were moderately involved, with scattered subcutaneous glands. The medulla of several bones pale and less vascular than normal. The histological examination showed that the sternal tumour and the other deposits to be of lympho-sarcomatous nature.

Of all these cases acute cannot be doubted. All three patients enjoyed good health, and were able to follow their work till a few weeks before death; in all of them the symptoms commenced somewhat suddenly with pain, weakness, pallor, loss of appetite, and pyrexia. It is, however, probable from the somewhat firm nature of the intrathoracic growths in the first and third cases, that those local tumours had been in existence for some time, and that from the acute onset the disease became general.

From the cases above related, and from the references to similar cases and from the medical publications, one may classify acute Hodgkin's disease or acute pseudo-leucocytæmia into various types, corresponding to the types of chronic Hodgkin's disease, namely, one type in which the superficial glands are found enlarged, of which the third case is a good example, another type in which the glands are not affected, and, a third type in which the mediastinal glands are prominently affected, the superficial glands showing no change—this type is well illustrated by the first case; and a third type where the prominent symptoms refer to an affection of the abdominal organs and intra-abdominal lymphatic glands, and which is illustrated by the second case.

The classification just given may be found useful and convenient as a clinical distinction; it will be noticed, however, that though one set of glands is much more affected than others, yet the disease is general, and metastases may be found in the various organs. Common to all the three types are also profound anaemia, emaciation, hemorrhages from the mucous membranes and in the subcutaneous and subcuticular tissue, and occasionally retinal hemorrhages and pyrexia, which may have the hectic type, or the febrile type, or the chronic intermittent type of Gowers and Esbern, that is, periods of pyrexia alternating with apyretic periods. Splenic enlargement, which is described as a common feature in chronic Hodgkin's disease, was present only to a limited extent in these cases. On observation of cases of chronic Hodgkin's disease I am inclined to think that this symptom does not occur so frequently as is taught in textbooks, and that it is only found when metastatic deposits occur in the spleen, and become large enough to reach an external size. The examination of the blood shows in acute, as in chronic Hodgkin's disease, no constant changes. The red blood corpuscles are diminished in number, microcytes and poikilocytes are present in varying proportions; nucleated red blood corpuscles I have not been able to detect; the leucocytes are increased, sometimes to no greater extent than in cases of profound anaemia or in cases of acute pneumonia, or some of the acute zymotic diseases at other times, as in the first of the three cases given above. Any bone marrow found were small and mostly mononuclear. Ehrlich's eosinophilous cells, which are found so often increased in leucocytæmia, I have especially examined for in our cases of acute and chronic Hodgkin's disease, and have found them present in fairly large quantities in some cases, though in the majority they were only sparingly found. The view of Ehrlich that these cells are derived from the spleen alone has been controverted by Müller and others, and as recently eosinophilous cells have been found in the sputum of patients suffering from tuberculosis in some cases, though in the majority they were only sparingly found. The view of Ehrlich that these cells are derived from the spleen alone has been controverted by Müller and others, and as recently eosinophilous cells have been found in the sputum of patients suffering from tuberculosis in some cases, though in the majority they were only sparingly found. The view of Ehrlich that these cells are derived from the spleen alone has been controverted by Müller and others, and as recently eosinophilous cells have been found in the sputum of patients suffering from tuberculosis in some cases, though in the majority they were only sparingly found.
peculiar intermittent type, and the post-mortem examination showed numerous lymphosarcomatous deposits in the intra-peritoneal and mesenteric glands. Many of you will also remember the case which was thought to be tuberculosis of the mesenteric glands with tuberculous peritonitis, and revealed hitherto unsuspected cases of peritonitis by not being preceded by any very obvious symptoms. Again, to pernicious anemia, as already mentioned, this form of Hodgkin's disease bears a close resemblance; the differential diagnosis must depend upon careful examination of the blood, which, as you know, in pernicious anemia shows a marked decrease of the red blood corpuscles, whilst the hemoglobin is not diminished in the same proportion, and the examination of the urine, which was highly coloured and showed the presence of urobilin and the character of the temperature curve, which, in pernicious anemia, as a rule, shows a marked increase of the temperature, is usually more chronic; and though the patient is very anemic from the first, the emaciation does not occur till late on in the course of the disease. Lastly, the compression of organs by the enlarged glands may give rise to right bronchial symptoms, which may be due either to obstruction of the bronchial tree or to compression of the lymph glands which had infiltrated the vertebral column, and caused compression of the cord, with all the signs of spastic paraplegia.

The prognosis of acute Hodgkin's disease is most unfavourable to the patients, either from exhaustion, or, where there is a large intrathoracic growth, disease-to-death takes place suddenly, or the patient dies from some complication, such as pneumonia, pleurisy, or acute phthisis. The disease, however, is always fatal. (A few weeks ago a patient was admitted into the infirmary suffering from intense anemia, slight cough, and moderate fever, which was looked upon as probably one of acute tuberculosis, though there were no physical chest symptoms. After a few days' stay in the hospital the glands in the neck, left axilla, and left hypochondrium were felt, and, in a course of a week, those in the axilla being larger than plums; at the same time the patient complained of great dyspnoea, and distinct dulness was made out to the right of the sternum, and signs of obstruction to the right brachium showed themselves. The spleen was perceptibly enlarged during this time. The blood showed marked increase of leucocytes and the presence of eosinophilic cells was demonstrated. The patient had lost 10 lbs. in weight in two weeks. The diagnosis of acute or Hodgkin's disease was made, and the condition of the blood improved, the patient gained considerably in weight (14 lbs. in four weeks), and is now convalescent.)

The treatment of acute Hodgkin's disease is the same as that for chronic Hodgkin's disease—rest, light and nutritious diet, the use of arsenic in gradually increasing doses, the employment of mercurial and other tonics, and iodide of potassium. From the good effects which I saw in one case I would also recommend mercurial inunction, though of course taking care not to produce salivation or any of the signs of mercurialism.

Let us now glance at the pathology of Hodgkin's disease, on which the acute form, which is the subject of this lecture, throws some light. Hodgkin's disease, or pseudoleukemia, belongs to the class of diseases described by Virchow as lymphatic tumours. Of these several, such as the scrofulous lymphadenoma, the lymphosarcoma, and lymphoid hyperplasia, which are now recognized as the true forms of Hodgkin's disease, are now known to be infective and due to distinct and specific organisms. There remain in this group the simple lymphoma, the malignant lymphoma, including Hodgkin's disease and leukemia. Simple enlargement of the lymphatic gland, which occurs in most cases is not a simple hyperplasia but must be considered as a more or less chronic form of inflammation, of adenitis, due to some irritation. Leukemia is a general disease due to a profound alteration of the blood-forming organs (medulla of bone, spleen, lymphatic glands) and showing as the characteristic factor marked increase of leucocytes of various types. Malignant lymphoma has been divided by some authors into two distinct forms: the lymphadenoma, having more the character of a lymphatic overgrowth, being not infrequently somewhat hypertrophic, and the lymphosarcoma, having more the structure of a sarcoma or embryonic cell growth in a gland, which readily infiltrates the neighbouring tissue and readily produces secondary and metastatic deposits.

From the careful examination of many specimens, for which I have to thank all my medical and surgical colleagues at this hospital, which were derived from cases which I had an opportunity of seeing during life, I have come to the conclusion that there is no fundamental structural difference between a lymphadenoma and a lymphosarcoma in the differences as are noticed as regards structure can be easily explained by the different rate of growth, the preponderance of certain embro-
they are closely allied to leukemia, and the affected glands show masses of small round cells, endothelial cells, and giant cells. But besides these cases, there are others again which are more closely allied to the lymphosarcomatous tumours, and, though apparently the symptoms may appear to be general from the first, yet there is often a primary focus, which may have existed for some time and given rise to no symptoms.

You see, therefore, gentlemen, that the pathology of Hodgkin’s disease is far from being satisfactorily made out. This is clearly shown by the various names which have been applied to it, for example, lymphosarcoma, lymphadenoma, malignant lymphoma, adenoma, lymphadenitis, lymphatic cachexia, lymphosarcomatosis, lymphadenomasicous, pseudo-leukemia, chronic intermittent fever, etc. To sum up what our own researches have led us to believe, we may adopt the following classification:

1. Acute Hodgkin’s disease—better termed acute lymphosarcomatosis—a general infectious disease of specific type, which may follow a local focus or be general from the first.

2. Chronic Hodgkin’s disease, which includes (a) a form of disease of the same features and nature as the acute form, but which is chronic in its course, and (b) a form allied to leukemia, and which may therefore aptly be termed chronic pseudo-leukemia, which presents more a hyperplasia of the blood-forming organs, and of which there may be, as in leukemia, a lymphatic, a splenic, and a myelogenic type, though the independent existence of the two latter forms has not yet been clearly established.

**Course of Lectures on the Surgery of the Kidney.**

Delivered at the Middlesex Hospital

By Henry Morris, M.A., F.R.C.S.,

Surgeon to, and Lecturer on Surgery at, the Hospital.

**Lecture I.**

On Conditions Simulating Renal Calculus as Verified by Surgical Exploration in Twenty-Eight Cases.

Gentlemen,—In a report, published a year or two ago, of some of the cases in which I had just previously performed nephrolithotomy, I stated that I would at some future time put together all the cases in which I had explored for suspected renal calculus without operation.

It is my intention in this and the next lectures to lay before you the essential facts of each of these cases, so as to enable you to realize how many pathological conditions give rise to symptoms like those of renal calculus. You will thus appreciate the difficulties in diagnosis, and understand how impossible it is in some cases for the surgeon, with the knowledge which he at present possesses, to approach an operation for a suspected stone in the kidney, no matter whether his method be the lumbar or abdominal, with anything approaching absolute certainty that he will find what he seeks—that there is really present what he suspects to be giving rise to the patient’s symptoms.

Is it any different in the case of vesical calculus? In the bladder, as in the kidney, other affections simulate stone, but the introduction of a sound by a practised surgeon at once clears up all doubt, and the operator is thus enabled to make with deliberation all the preparations necessary for the accomplishment of a definite result, namely, the extraction of the stone.

In diseases of the kidney, possibly or probably calculus, much may be anticipated, but nothing positively predicted; preparation for many contingencies must be made, but no plan of procedure can be definitively arranged beforehand. If a calculus be found will it be single, or one of two or three, or even one of a quarry? What will be its size? Will it be thickly surrounded by the secretory structure, or occupying the renal pelvis? Will it be fixed or movable, a hard, an empty, or an old, or a soft mortality mass? Will it be best to remove it through the parenchyma or pelvis of the kidney? Will it be complicated or not with renal abscess, and, if so, will the pus be inodorous or most pestilential? These and other questions must often remain unanswered until the operation is completed, and even then we cannot be sure that there is only one stone present and often very considerable, no matter whether the kidney is explored through the loin or otherwise. There may be no stone whatever, but instead, a kidney which will need nephrectomy or nephrothorax, or which must be opened for one or more abscesses caused by phlegmon. Or again, nothing may be found either about the kidney or the surrounding structures to explain the symptoms, or, on the other hand, some condition may be found on cutting into the loin which renders any detailed examination of the kidney unnecessary.

So varied are the disclosures derived from a considerable number of kidney operations that, whilst I am bound to impress upon you the great value of exploratory operations in many cases, and the absolute necessity of them in many others, it is at the same time evident to you of the uncertainties which surround cases which require and ought not to be deprived of the operation. I am convinced that exploration, far from being made too often, is not resorted to often enough, that many patients are allowed to go home, often to a fatal length, suffering conditions from which they would be at once freed by an operation. Two aspects of this field of surgery I would have you bear in mind; one is that the benefits of the operation ought not to be withheld from a person whose symptoms fail to yield to palliative treatment carried out with sufficient length of time; the other is that, on account of the great difficulty—nay, even the impossibility—in certain cases of forming a precise opinion as to the pathological cause of the symptoms, the object and uncertainty of the operation ought to be duly explained to the patient, and full discretionary power retained for the surgeon.

The risks of the procedure must depend upon the nature of the ultimate operation. Whilst it may be fairly said that those attending upon a simple exploration or nephrothorax, practically nil, the opening of a large abscess is not quite so free of danger, and the risks of nephrectomy are often very great; and, from my experience, I may tell you that you will in most cases, if properly selected, discover some morbid condition, if not stone, which will be relieved by the operation.

Gradual Development of the Method of Exploration.—It will occur, no doubt, to some of you to ask this very pertinent question: After you have cut down upon the kidney for stone and found none, can you be certain that you have not over looked a small calculus, and, therefore, that the symptoms have not been really excited by renal calculus in spite of failure in finding one? To this I answer that I believe, at the present time, I can. Up till about three years ago I could not do so much, but now I think I have learned to do so. This greater certainty arises from the more thorough examination which I now make of the kidney. For a long time after the first introduction of an operation the surgeon is very cautious, perhaps too cautious, in his procedure. He has not yet gained proficiency in the science, and one of the steps in the operation advance further and further towards completeness. Thus has it been with nephrolithotomy and the search after calculus in the kidney.

At first it was thought sufficiently bold to cut down upon and expose the posterior surface of the organ, to palpate it, and probe its substance with a fine sharp needle. Next the tissues were separated from the front as well as the posterior surface, and a thorough manipulation, the kidney being