CLINICAL LECTURE

ON

ACUTE HODGKIN'S DISEASE.

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HODGKIN'S DISEASE, or pseudo-leucocythæmia, 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, which many of you have seen, I should like to give you a brief description of the symptoms in this disease and to make some observations on the probable pathogenesis of Hodgkin's disease and its relation to other allied affections. Of the cases 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 February 19th, 1891, and died five days after admission. The patient had been strong and vigorous, and enjoyed good health till his present illness came on, about a month before admission. He had always been temperate and had not had syphilis. About four weeks before his admission into the infirmary he commenced to cough and was troubled with pain across the chest; he, however, went on with his work till January 31st, when he had a rigor lasting more than an hour, and pain in the right side of the chest; the cough became worse, and he began to expectorate muco-purulent masses; it was also noticed by his friends that he looked very pale, and was getting much thinner.

On admission the patient was found very anæmic and somewhat emaciated; the skin was dry; there were no enlarged superficial glands, no œdema of the extremities, no hæmorrhages; the temperature was 100.4° F. The physical examination of the chest showed no asymmetry; the right side expanded more than the left; the breathing was hurried and laboured, 36 per minute; on percussion of the chest, slight dullness was made out over the upper part of the sternum and adjacent right side, from the first to the third intercostal 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 dullness, with diminished fremitus and diminished breath sounds on the left side, and subcrepant *râles* 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 muco-purulent nature. The voice was hoarse. The apex beat was not visible, and could only be faintly felt in the fifth intercostal space, about half an inch to the right of the nipple; the area of cardiac dullness appeared diminished; the heart sounds were normal but very weak; the pulse was frequent, 120 per minute, small, regular, very compressible, and dicrotic; the pulse in both radials was equal. The blood was pale, the leucocytes increased—1 leucocyte to about 40 red blood corpuscles; most of the leucocytes were small, mononuclear; there were a few large ones with large granular nuclei, and when stained with eosin and afterwards with hematoxylin—after Ehrlich's method modified by Müller—a few eosinophilous cells were found. The tongue was covered with thick, brownish fur, the gums pale, not spongy, the abdomen normal in appearance; there were no enlarged superficial glands; the liver was normal as regards its dimensions; the spleen was found somewhat enlarged in its vertical diameter; there was 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 leucocytosis and left pleurisy. The diagnosis was based on the presence of mediastinal growth, of the profound anæmia, 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 leucocythæmia, and the presence of Ehrlich's eosinophilous cells I have noticed before in cases of undoubted Hodgkin's disease. Considering that there were no other glandular enlargements besides the mediastinal growth, and that the spleen was after all not so much enlarged as to be felt, I looked upon the increase of leucocytes as due to an acute leucocytosis, and could not regard the case as one of acute leucocythæmia, to which disease, as in a case recently described by Ebstein, it bore some resemblance.

The treatment consisted in small doses of liquor Fowleri, and of aromatic spirits of ammonia with ether. The patient became rapidly worse, the pulse became quicker and feebler, the dyspnoea became more troublesome; the temperature ranged between 99.5° and 100.5°; the patient became slightly delirious, and died on February 27th.

The post-mortem examination verified the clinical diagnosis. The left pleural cavity contained about a pint of clear serum, and in the anterior mediastinum was found an oval, whitish mass, uniform on section, somewhat firm in consistence, closely adherent to the large vessels and the pericardium; in the lobes of the liver a similar mass was seen, and both kidneys contained numerous whitish tumours; the spleen was enlarged, and weighed 16 oz.; on section it was found to be firm, the tra-

beculae well marked, but no deposits were seen; the liver was anæmic, but showed no other alterations. The medulla of such bones as were examined (sternum, ribs, femur) showed no changes. Microscopically examined the tumours showed the appearance of lymphosarcomatous tissue; besides small round cells, larger round cells with large nuclei and large endothelioid cells were found, whilst the reticulum presented tracts of coarse fibres and finer fibrillæ; at the periphery of the tumour the cell elements preponderated, and around the small vessels were masses of leucocytes, like small inflammatory foci. Examined for micro-organisms with various stains, sections of the kidney showed at the periphery of the tumour masses, close to the small-celled foci, numerous small bacilli in and around the glomeruli, and sometimes forming small thrombi in the glomerular capillaries. Portions of the tumour placed in nutritive media for the growth of micro-organisms gave only negative results.

CASE II.—J. B., engineer, aged 48, was admitted into the infirmary October 27th, 1891, and died on November 1st. The patient had led a roving life in connection with the Ordnance Survey. He had always enjoyed good health, and never suffered from any serious illness till the present, which commenced about six weeks before admission. He had been temperate, and denied having had syphilis. The present illness commenced with pain in the limbs, and shivering, which was so severe that he had to take to his bed; he then had very severe pain in his back, down the spine, across the small of the back, and occasionally shooting along the ribs or down the arms; he became very weak, and during the last fortnight suffered from bleeding from the gums.

Condition on Admission.—Patient was anæmic, and somewhat emaciated, complained of great pain in the back, which prevented him from sleeping. Pulse 110, small, compressible; the skin is dry; temperature, 100.5°; no enlarged superficial glands; slight œdema of the lower part of the back; no œdema of the feet; no signs of hæmorrhage from the skin. The physical examination of the chest showed a somewhat dull note over the upper part of the sternum; the percussion and auscultation over the lungs and heart, however, showed nothing abnormal. The breath had a ligid odour. The lips were pale, likewise the tongue; the gums bled easily on the slightest touch, but were not spongy. The examination of the abdomen showed the liver slightly enlarged, and the edge could be distinctly felt; the spleen was also found slightly enlarged; there was no evidence of any ascites; the epigastric veins, however, were distinctly enlarged. Anorexia, but no vomiting; constipation. Percussion of the spine was very painful over the whole lumbar region; patient could not raise himself on account of pain in the lumbar region. The examination of the nervous system showed nothing abnormal; the knee reflexes were slightly exaggerated; no optic neuritis; no hæmorrhages in the retina. The urine pale, clear, alkaline; contained no albumen, no sugar. Leucocytes increased (1 leucocyte to about 100 red blood corpuscles), mostly small, and mononuclear; a few eosinophilous cells; the red blood corpuscles diminished (about two millions), poikilocytes, microcytes.

The diagnosis we arrived at, you will remember, was acute Hodgkin's disease, and the points which chiefly guided us in this diagnosis were the profound anæmia, the hæmorrhage from the gums, and the enlargement of the spleen and liver. The poststernal dullness we thought to be due to some enlargement of the mediastinal glands, and the excessive localised pain at the back to deposits of, or infiltration with, lymphosarcomatous tissue in the vertebrae.

The treatment consisted in the administration of arsenic and quinine.

Progress.—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 admission. His temperature during his stay in the hospital showed a distinctly remittent ascending type, the morning temperature being about one degree less than the evening temperature, and each successive evening temperature being about 0.2 degree higher than the preceding evening temperature; the temperature curve, therefore, resembled very much the type described by Gowers, Ebstein, Peil, and Rensers in some form of Hodgkin's disease, representing half the cycle of the peculiar ascending and descending wave.

The post-mortem examination verified the diagnosis; the liver weighed 4 lbs. 8 oz., and showed numerous white deposits scattered over the surface and throughout the organ. The spleen weighed 10 oz., and showed no deposits; some of the mesenteric glands were increased to the size of walnuts, and were white and soft; the pancreas was normal, but the surrounding glands were very enlarged and hard. The glands in the hilum of the lungs were enlarged, but no enlarged glands were found immediately behind the sternum; the sternum itself, however, was very thick. No deposits were found in connection with the vertebrae. The histological examination of the glands and metastatic tumours showed them to belong to the lymphosarcomata. The examination of sections of the sternum and portions of the femur showed nothing abnormal to the naked eye.

By the permission of my colleague, Dr. Bury, under whose care the patient was, I may give the history of a third case, which is 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 stableman, aged 36, 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 lately been occupied much with clipping horses, some of which suffered from what is called green itch, but this disease is not glanders. With the exception of slight colds, he had always enjoyed good health, and had been of temperate habits. He had not been near any horses affected with glanders. About five weeks before admission he was somewhat suddenly taken with discharge from the nose, with cough, shortness of breathing, and pain in his chest, for which he sought advice in the out-patient department of the infirmary. A few days before admission the glands in the neck were noticed to be enlarged, the breathing became worse, and he felt so weak that he was admitted an in-patient.

On admission the patient was found to be anæmic, there was great dyspnoea on the least exertion; the right palpebral fissure and the right pupil were smaller than those of the left side; on the upper lip there was a small abscess, which had been present throughout the whole of his ill-

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 close to the sternum and over the upper part 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 respirations were 40 per minute. Laryngoscopic examination showed paralysis of the right vocal cord. The heart appeared somewhat displaced to the left, the sounds were weak; pulse 112. The examination of the digestive tract and abdominal organs showed nothing abnormal; the spleen was not enlarged; the urine contained urates abundantly, but was free from albumen and sugar. The temperature was 101°.

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 worse, and the dulness on the right side of the chest rapidly increased, and over the upper part of the right lung in front the breath sounds and fremitus were increased; below the breath sounds were diminished, with scattered subcrepitant *râles*, 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 foetid expectoration 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 4th.

The treatment consisted in the administration of arsenic.

The *post mortem* examination, like those of the other two cases, was made by Dr. Kelynaek, pathologist to the infirmary; and the following is a brief extract from his report:—Brain and head normal. Thorax: Upper part of mediastinum, together with lower part of neck beneath and above 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 growth extends to parietal layer of pleura. The right lung almost completely solidified; upper lobe encased by and infiltrated with growth; lower lobe is the seat of suppurative pneumonia. The right bronchus, infiltrated by tumour masses, shows an ulcerated and gangrenous condition of the mucous membrane. Left lung and pleura are free from growth. The trachea 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 mesenteric glands enlarged by deposits of growth. The kidneys infiltrated with numerous scattered white deposits. The medulla of several bones pale and less vascular than normal. The histological examination showed the mediastinal tumour and the other deposits to be of lympho-sarcomatous nature.

That all these cases were 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 these 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 scattered about in various medical publications, one may classify acute Hodgkin's disease or acute pseudo-leucocythæmia 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; a second type in which the intrathoracic 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 are much more affected than others, yet the affection is general, and metastatic deposits may be found in the various organs. Common to all the three types are also profound anæmia, emaciation, hæmorrhages from the mucous membranes and in the subcutaneous and subcuticular tissue, and occasionally retinal hæmorrhages and pyrexia, which may have the hectic type or the somewhat characteristic chronic intermittent type of Gowers and Ebstein, that is, periods of pyrexia alternating with apyrexial periods. Splenic enlargement, which is described as a common feature in chronic Hodgkin's disease, was present only to a limited extent in our cases, and from my own 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, when certainly the spleen may reach an enormous 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 num-

ber, 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 anæmia 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, there may be marked leucocytosis; the leucocytes found were small and mostly mononuclear. Ehrlich's eosinophilous cells, which are found so often increased in leucocythæmia, 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 spasmodic asthma during the asthmatic attack, and as they have also been found in nasal and pharyngeal polypi, their significance in leucæmia and in Hodgkin's disease remains yet to be seen.

Some authors, being struck by the analogy between pseudo-leukæmia and leucæmia, have described in addition to the lymphatic form, which includes the three types I have just mentioned, (1) a splenic form of pseudoleukæmia, in which the spleen only is effected, and (2) a myelogenic form, where the lymphosarcomatous changes are confined to the medulla of the bones. I have already, elsewhere,¹ drawn attention to the insufficient data which as yet do not allow us to recognise either of these forms; though it is probable that some of the cases of acute osteomyelitis may prove to be cases of acute Hodgkin's disease. The changes in the medulla of some of the bones which we found in some of our cases of acute Hodgkin's disease do not differ from those seen in profound anæmia and long ago described by Cohnheim, Litten, Neumann, and others; whilst in others the medulla was found normal.

Now as regards the diagnosis of acute Hodgkin's disease, I may be brief after the observations just made. Where the superficial glands are chiefly implicated the diagnosis is easy. From acute adenitis the disease is distinguished by the multiple appearance of the glandular enlargement, the absence of pain in the glands, or of inflammatory signs in the adjacent tissues and the presence of the general constitutional symptoms. From acute tuberculous affection of the glands it is differentiated by the rapid enlargement of the glands which remain freely moveable, and do not suppurate or undergo caseous degeneration. Other primary malignant tumours of the superficial glands, such as sarcoma, endothelioma, are of very rare occurrence, and do not appear at once in a multiple form. From acute farcy the history of the case and the absence of any local symptoms in the nasal passages form the chief diagnostic points. When the intrathoracic glands are involved—the second type of the classification given above—the recognition of the disease is equally easy. We have, however, to bear in mind that there may be some enlargement of the glands without any physical signs or pressure signs, and, on the other hand, slight sternal dulness may exist, as in the second case given above, which is not due to any intrathoracic tumour. The general symptoms, such as the anæmia, and especially the appearance of hæmorrhages and the peculiar pyrexia curve, will assist us in the diagnosis.

The diagnosis of the third type, where the abdominal glands are principally involved, is not so easy. The disease may here simulate typhoid fever, acute tuberculous peritonitis or tabes mesenterica, pernicious anæmia, purpura, or septicæmia; for the mesenteric and retroperitoneal glands are not sufficiently enlarged to be made out by palpation, the enlargement of the spleen is seen in pernicious anæmia as well as in typhoid, and hæmorrhages may occur in pernicious anæmia, in septicæmia, and in typhoid. Thus a case was admitted into the fever hospital as typhoid fever, there being marked pyrexia, hæmorrhage from the bowels, and enlarged spleen. The patient died a few days after admission, and the case proved to be one of acute Hodgkin's disease; the mesenteric glands were principally affected, and the lower portion of the bowel infiltrated with similar masses. Another patient was admitted into the infirmary some months ago as a case of purpura; the temperature of the patient, however, had the

¹ *Deutsche med. Wochenschrift*, No. 342, 1891.

peculiar intermittent type, and the *post-mortem* examination showed numerous lymphosarcomatous deposits in the intraperitoneal and mesenteric glands. Many of you will also remember a case which was thought to be tuberculosis of the mesenteric glands with tuberculous peritonitis, and revealed itself at the necropsy as one of acute Hodgkin's disease. Again, to pernicious anæmia, 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 anæmia shows a marked decrease of the red blood corpuscles, whilst the hæmoglobin is not diminished in the same proportion, and the examination of the urine, which was high coloured and shows the presence of urobilin, and the character of the temperature curve, which, in pernicious anæmia, as a rule, shows a subnormal temperature. Further, pernicious anæmia is usually more chronic; and though the patient is very anæmic 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 symptoms which obscure the diagnosis: thus we may have obstinate vomiting from compression of the stomach, constipation from compression of the lower bowel, ascites with or without jaundice from pressure by glands in the hilum of the liver, and, in one case, symptoms of compression of the spinal cord were produced by a mass of retroperitoneal glands which had infiltrated the vertebræ, and caused compression of the cord, with all the signs of spastic paraplegia.

The prognosis of acute Hodgkin's disease is most unfavourable. The patients die either from exhaustion, or, where there is a large intrathoracic growth, death often takes place suddenly, or the patient dies from some complication, such as pneumonia, pleurisy, or acute phthisis. The disease, however, is not always fatal. (A few weeks ago a patient was admitted into the infirmary suffering from intense anæmia, slight cough, and moderate pyrexia. The case 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 and in the left axilla were noticed to be enlarged, and, in the course of a week, assumed large proportions, 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 bronchus showed themselves. The spleen also perceptibly enlarged during this time. The blood showed marked increase of leucocytes and the presence of eosinophilous cells was demonstrated. The patient had lost 10 lbs. in weight in two weeks. The diagnosis of acute or Hodgkin's disease was now made, and the patient put on arsenic. Most marked improvement in all the symptoms manifested itself, the temperature became normal, and has remained so since, the superficial glands almost completely subsided, the chest symptoms disappeared, and the splenic dulness became normal, 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 administration of arsenic in gradually increasing doses, iron 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 pseudoleukæmia belongs to the class of diseases described by Virchow as lymphatic tumours. Of these several, such as the scrofulous lymphoma, typhoid lymphoma, tuberculous lymphoma, pearl 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 leukæmia. Simple enlargement of a lymphatic gland in most cases is not a simple hypertrophy but must be considered as a more or less chronic form of inflammation, of adenitis, due to some irritation. Leukæmia 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 less malignant and characterised by not infiltrating the parts adjacent to the glands, 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 a 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; such differences as are noticed as regards structure can be easily explained by the different rate of growth, the preponderance of certain embryonic cells, and so on, and that clinically, also, the two forms must be looked upon as identical. I have treated more fully of this subject in the paper in the *Deutsche medicinische Wochenschrift*, quoted before. I will only briefly tell you that the structure of both the lymphadenoma and lymphosarcoma is that of an inflammatory growth containing round cells, spindle cells, giant cells, with more or less fully-formed fibrous tissue and a fine fibrous reticulum; the blood-vessels often show thickening of their walls, as in syphilomata, and a perivascular infiltration with round cells, as in many chronic inflammatory affections. I therefore look upon the malignant-lymphoma—including lymphadenoma and lymphosarcoma—as a specific inflammatory growth (a specific granuloma, if you like) due to a specific infective agent. The disease may aptly be compared to tuberculosis, a malignant lymphoma corresponding to a local tuberculosis, such as a scrofulous gland, or a tuberculous testicle, whilst Hodgkin's disease corresponds to generalised tuberculosis, and like it may be either acute or chronic. We may easily carry our comparison further when we look at the localisation of the disease, and compare the various types of Hodgkin's disease with the various forms of tuberculosis, only bearing in mind that in Hodgkin's disease the glands are principally attacked, whilst the tuberculous virus, besides affecting the glands, causes inflammatory and destructive changes in the various organs and tissues; thus scrofulous glands in the neck may be compared with the lymphadenoma so often found in that locality; pulmonary phthisis, with lymphosarcoma of mediastinal glands, and tabes mesenterica, with the malignant lymphoma of the retroperitoneal and mesenteric glands. The constitutional symptoms, such as the anæmia, the hæmorrhages, and the pyrexia, which are present both in acute and chronic Hodgkin's disease, still further support the view that we have to do with an infectious disease. The infective agent which underlies this disease remains yet to be found. Several observers have found micro-organisms in the affected glands. I have exhibited to you sections of the kidney from our first case, where small bacilli are seen in and around the glomeruli, and where the glomerular tufts are in some places completely filled by bacilli. The examination, however, of numerous specimens from other cases has not revealed the presence of any micro-organisms, and portions of affected glands placed in various cultivating media have not given any positive results. (The positive results obtained by Kelsch and Vailland, reported in *Annales de l'Institut Pasteur*, 1890, p. 276, are open to objection.)

Now, when we eliminate the cases of pseudoleukæmia, which must be looked upon as a generalisation of a primary malignant lymphoma, there remains still a series of cases where the disease runs a very chronic course, where the superficial glands of neck, axilla, and groin are very much increased and form large masses, and represent more a hyperplasia of the glands. To these many authors—and I may mention amongst them the most recent writer, Dr. Steven²—would confine the term "Hodgkin's disease," regarding it as a general disease due to a hyperplasia of the blood-forming organs, with metastatic deposits in the various organs.

Clinically these cases certainly present special features,

² *Glasgow Med. Journal*, 1891.

they are closely allied to leukaemia, and the affected glands show masses of small round cells, endothelioid 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, *adénie*, *lymphadénie*, lymphatic cachexia, lymphosarcomatosis, lymphadenosis, pseudo-leukaemia, 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 may 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 leukaemia, and which may therefore aptly be termed chronic pseudo-leukaemia, which presents more a hyperplasia of the blood-forming organs, and of which there may be, as in leukaemia, a lymphatic, a splenic, and a myelogenous 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 finding one.

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 realise how many pathological conditions give rise to symptoms like those of renal calculus. You will thus appreciate the difficulties in diagnosis, and will understand how impossible it is in some cases for the surgeon, with the knowledge which he at present possesses, to approach an operation for 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.

How different is it 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 spiculated stone or a soft mortary 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 foetidly offensive? These and other questions must often remain unanswered till the operation has been far proceeded with. It is only want of experience in such cases which can lead you to suppose that the operation of extracting a stone from the kidney is always a simple and a uniform one; that all there is to be done is to expose the kidney, and then if there is a stone to cut it out. The difficulties in finding the stone and in making sure that there is only one stone present are 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 nephrorrhaphy, or which must be opened for one or more abscesses in the renal substance, or drained because of pyonephrosis. 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 kidney or suspected kidney affections, I must warn 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 on too long, often to a fatal length, suffering from 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 over a 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 obtained 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 nephrorrhaphy are practically *nil*, the opening of a large abscess is not quite so free of danger, and the risks of nephrectomy are often very great; but, 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 overlooked 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 have said so much, but now I think I honestly can 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 the confidence of custom nor the proficiency of practice. He feels his way step by step, fearing to be, or to be thought, rash, especially if the operation is one against which previous accredited and revered professional judgment had set the seal of disapproval. As experience ripens, however, and past successes justify and encourage further efforts, the steps of 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 more thorough manipulation, the kidney being