

# Clinical Remarks

ON

## ABDOMINAL SANGUINEOUS CYSTS.

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ONE autumn, seventeen or eighteen years ago, I went to Hastings with my wife and family, and on the platform of the station met a young lady with whom and whose family I was acquainted. She looked miserable, and told me that they had all been there several weeks on account of the illness of one of her brothers, who was, in fact, then dying. I was surprised, for I had heard nothing whatever of the matter, and had seen him only a few months before, apparently in perfect health. A little later in the day she called at my lodgings to request me to see him in consultation with his medical attendants, Mr. Barnard and Dr. Adey; and in the evening we met. The patient was a young man, twenty-seven or twenty-eight years of age, of loose habits, but who had (so far as I know) enjoyed very good health. His present illness was of a few months' duration only. He had been ailing for a month or two at home with symptoms referable to the abdomen, but which his own medical man, failing to understand or to benefit, sent him to the seaside to get rid of. He gradually became worse, however; and before long an abdominal tumour of large size was discovered. This rapidly increased in volume, and concurrently with its enlargement the patient emaciated and got weak; he had suffered also, more especially latterly, from intense abdominal pain, coming on in frequent paroxysms. I found him in bed, lying on his back, with his head and shoulders raised. He was pallid and sallow-looking, emaciated to the last degree, but with an enormously distended abdomen. His general aspect, in fact, was precisely that of a woman in the last stage of untreated ovarian dropsy, or of a child sinking from the effects of a malignant tumour of the kidney. He had no appetite, and indeed vomited (as he had done for some little time) everything that he took. He was in much pain during the whole time of my interview with him, and now and then appeared to be in extreme agony. It was supposed that his end was near, and I confess that I shared that view. On careful examination, I found a large, ovoid, but somewhat irregular tumour occupying mainly the left side of the abdomen; it extended from the ribs above to the pubes below, and from the left loin to a couple of inches or so to the right of the umbilicus. The bowels were pushed to the right, there was no fluid apparently in the peritoneal cavity, and, with the exception of the large tumour, no evidence of abdominal disease. I may further state, at once, that the thoracic viscera were all healthy, that none of the superficial glands were enlarged, and that the excretory functions and products were normal. The tumour, when first discovered, was assumed to be malignant, and to have originated in the liver. Its position now, however, did not in the least suggest an hepatic origin. It seemed rather to be connected with the spleen, or kidney, or peritoneum in the neighbourhood of these organs. It was fixed; it presented no notched edge, nor indeed any edge at all; and so far as could be made out the large intestine did not cross its surface. Which of the latter alternative views of its origin was the correct one was undeterminable by ordinary physical examination. It was, however, cystic, and it was decided to tap it. The next morning a large-sized trocar and cannula were introduced, and at least a gallon and a half of opaque, turbid, dark, reddish-brown fluid were removed, with the result that the cyst was nearly emptied, and not much evidence was left of its presence in the abdomen. The fluid was simply altered uncoagulated blood, and the only microscopic elements detected in it were ordinary red and white corpuscles.

I left Hastings after that for a fortnight, and when I returned I found our patient able to sit up and enjoy some hours daily on the beach, gaining flesh rapidly, free from pain, with a good appetite, and sleeping well. Indeed, he was advanced in convalescence; but the cyst was refilling.

I saw nothing more of him at this time; but learnt that at the end of two months from his tapping the tumour had become almost as large as ever, and paracentesis had again to be resorted to, and that the fluid removed was of the same quality and almost as abundant as that removed on the first occasion. He had, however, retained his renovated health to a large extent. The fluid never reaccumulated after the second tapping, and after the lapse of two or three more months he returned home perfectly well and able to resume his occupation.

I may as well give the subsequent history of this case at once, with its episodes, for they are interesting, though they have little relation to the main object of this lecture.

Shortly after his recovery from the above illness the patient married a young lady to whom he had been for some time engaged, and who had nursed him, and took up his residence in one of the suburbs of London. I did not see him again for three or four years, when I was requested to attend him in consultation. I found him living in very good style, but he had been drinking rather heavily, and was suffering in consequence from an attack of delirium tremens. When I entered his bedroom he was laughing heartily, and it was some time before I could get him to explain the cause of his mirth. He told me at length that just before I arrived he fancied he had seen, through his window, a number of naked men running one after another across some fields, and leaping over a ditch that divided them, while a person concealed in the ditch, and armed with a razor, lopped off each one's privates as he jumped. Not a trace of his old abdominal tumour could be detected. It is a pity, however, that he had not been treated at this time as the phantom jumpers had been treated by their phantom enemy, for shortly afterwards he imparted syphilis to his wife, from the effects of which she ultimately died. The next time I saw him was some seven or eight years ago, when I was requested to admit him under my care into St. Thomas's Hospital. He had for some years taken to drinking; he had been turned out of the business in which he was a partner; he had sunk into the lowest depths of degradation; and for a year had been living with a prostitute and on the proceeds of her traffic. He was filthy and squalid and worthless, and he was suffering mainly from filth-sores about his body and enlarged lymphatic glands resulting therefrom. Again I examined his abdomen most carefully, and again could discover no sign whatever that he had at any time suffered from abdominal disease. For the third time he recovered. I have seen him once since, in rags and begging, in Cornhill, but where he is and what he is doing now I have not cared to inquire. I hope I may have done some good in my time. I certainly looked back for a few years with special pleasure to my share in the successful treatment of this case; I look back to it now with regret and almost with remorse.

What was the nature of this man's tumour? Was it a portion of the peritoneal cavity, cut off from the rest by adhesions, and in connexion with a rupture of the spleen or some other viscus? I have seen such a cyst, on the right side of the body, due to rupture of the liver, and containing altered blood, the patient surviving many weeks. There was no history, however, of injury in this case, and, moreover, the symptoms were slowly developed. Was it a simple cyst arising in the peritoneum, spleen, or kidney, the secretion into which had assumed a hæmorrhagic character? If this were its nature it had most probably, I think, originated in the spleen; but I have never met with any such cyst even in this organ. Was it an hydatid? I should think not, for many reasons, and amongst others because even after the most careful examination by several competent observers no trace of hydatid membranes, of microscopic cysts, of echinococci, or of hooklets was discovered. Was it a case of rapidly developed and gigantic hydro-nephrosis, or (as I presume it should be called) hæmato-nephrosis? I think it was either a simple cyst of the spleen or a distended kidney, and on the whole I lean to the latter opinion. I confess, however, that its nature has ever been a mystery to me, and I have always hoped that sooner or later some elucidative case would present itself before me.

The case which most resembled it first came under my notice early in 1879, and for a time seemed so close a copy of it in its phenomena that I looked forward hopefully for an equally happy result. But, alas! I was doomed to disappointment; for my poor friend, as I like to think him (for he was a man of character and culture, and grateful in the highest degree to all about him for their

efforts in his behalf), after remaining intermittently under my care for several years, died of his malady last summer. He was a newspaper reporter and writer, of dark complexion and delicate physique, who towards the end of the year 1878 first began to complain of the symptoms of the malady for which he placed himself under my care in St. Thomas's Hospital on February 20th, 1879. He was then thirty-five years of age.

On admission it was found that he had a large belly (the veins in the walls of which were dilated), and that the enlargement was due to the presence of a tumour which occupied its lower part. This was rounded and symmetrical in shape, extending from an inch or two above the navel to the pubes, and from one anterior superior iliac spine to the other. There was absolute dullness in all this area and distinct fluctuation. It was neither tender nor painful, nor did it present the hydatid thrill. The abdomen was in all other respects healthy. The thoracic organs also were healthy. He had a good appetite, but could take very little food. His bowels were constipated, and opened only every three or four days. The urine was abundant, and had a specific gravity of 1014, and contained a trace of albumen. He slept badly, and complained of a dull aching pain about the anus, extending thence up the rectum, and also of pain about the umbilicus. The girth of the abdomen at this time was about thirty-three inches. The tumour, from its situation, might well have been the distended bladder; but it was broader than a bladder might be expected to be, and extended higher. A catheter was passed, however, and the vesical contents were removed, but without any effect on the tumour. Then an aspirator was introduced into the cyst, and a few ounces of fluid were withdrawn. This was reddish-brown, grumous, alkaline, with a specific gravity of 1024, became consolidated by boiling, contained abundant chlorides, and under the microscope showed numerous blood-corpuscles, but no other morphological elements. The resemblance of this cyst to that in the case first narrated naturally struck me; and the question I had formerly failed to answer again rose to my lips, What could be its nature? In this instance, however, it was clear that we had to do neither with a spleen nor with a kidney; neither was there any more evidence in this case than in that that the cyst contained hydatids. There was evidently, however, some ground for hoping that they might be, and, indeed, for thinking that they were, identical in their nature. After he had been in the hospital three weeks, his girth at the umbilicus had increased to thirty-four inches; and it was determined to tap the cyst. This was done with the aspirator, and 128 ounces of fluid, exactly like that obtained by the exploratory puncture, were removed. The patient was relieved from many of his discomforts, and no ill effects of any kind followed. On examination of the abdomen a day or two afterwards, its girth was twenty-nine inches and a half, and no trace of the tumour could be felt through the abdominal walls. There was a little tenderness, however, in the left iliac fossa. About a week later it was noted that dullness on percussion extended upwards two inches from the symphysis pubis; and from this time, with the exception that there was difficulty as regards the bowels, the patient improved in health and strength. The cyst, however, was slowly enlarging. On May 20th his girth was thirty-two inches, and it was thought advisable to tap him a second time. Eighty-six ounces of fluid were removed on this occasion; it was redder than, but in other respects exactly of the same character as, that removed previously. He left the hospital, much benefited, on June 8th.

He was readmitted on July 3rd, and, as he was then suffering much as he had done when he first came under treatment, it was decided to tap him at once, although the tumour did not reach the umbilicus by two inches. Seventy-four ounces of fluid, exactly like the last, were removed by the aspirator next day. A week later he got a slight attack of acute rheumatism, from which he recovered in the course of a few days. And again he left the hospital, much improved, on July 19th.

On Feb. 27th, 1880, he for the third time became an inmate of St. Thomas's. He had been suffering from abdominal pain, difficulty of breathing, some cough, sleeplessness, constipation, and more or less difficulty in micturition. His tumour was larger than it had been, and extended to two inches above the navel in the mesial line; its shape was unaltered, and it still fluctuated; but its walls were manifestly thicker, and there was an ovoid solid tumour, about an inch and a half in length, on the right

side, between it and the abdominal wall. This was freely movable and somewhat tender. The girth of the abdomen was thirty-three inches and three-quarters. On March 4th, 167 ounces of fluid, exactly like that formerly yielded, were removed by tapping. The girth of the abdomen after the operation was twenty-nine inches and a half, but the tumour could still be recognised as a more or less solid mass, occupying the region above the pubes. There was a gradual but slow increase in the size of the tumour after the operation, and at length, as the patient's health was deteriorating, as my original hopes with regard to the cure of the tumour seemed doomed to disappointment, and as also it was evidently becoming more solid, I consulted Mr. Sydney Jones as to the feasibility of its removal by abdominal section. On May 13th, the patient being kept under the influence of anæsthetics, Mr. Jones inserted his hand into the rectum, and made a combined rectal and vesical examination, with the result of discovering that the tumour dipped deeply into the pelvis, between the rectum and the bladder, displacing the bladder to one side, and he concluded that it was inexpedient to perform any such operation as had been contemplated. On June 4th the cyst was tapped for the fifth and last time, when only seventy-eight ounces of fluid were removed. Subsequently to this, the tumour slowly increased in size, and altered in shape, becoming somewhat lobulated and more solid, and, as my note says, "fleshy"; then it appeared to be stationary for a time; and, finally, it was thought to undergo distinct diminution, which continued up to the time at which he left the hospital on Nov. 27th. At that date the highest point of the tumour reached the level of the umbilicus; and the separate, movable lump had either receded so as to be out of reach of the finger, or had become incorporated into the larger mass. During this third stay in the hospital his health varied a great deal, but on the whole he got thinner and weaker. His bowels were usually constipated, and he had much continuous discomfort after the rectal examination; there was frequently some difficulty in passing urine, and this fluid varied in specific gravity, in quantity, and in quality; it often contained more or less albumen, and occasionally a little blood and traces of pus. Latterly, too, it was abundant, and of low specific gravity. His appetite was poor, he complained of pain and tenderness in the abdomen, his pulse was feeble, and his temperature for the most part was normal or subnormal. He had during this time a little temporary oedema of the legs, and on one occasion there was an outbreak of petechial spots over the abdomen and lower extremities. He lost nearly a stone in weight during the nine months.

It was not until May 19th, 1882, or after an interval of eighteen months, that he again sought admission into the hospital. He had been coming up almost daily to have morphia injections, had reported himself from time to time to the sister, and had been seen by myself occasionally in the street or in the hospital. He was very weak during all this time, and seemed if possible to get thinner, but the abdomen remained considerably smaller than it was when it used to need tapping, and he thought it was still diminishing. For the last month, however, he had been distinctly losing ground, and especially had been suffering from cough and expectoration, with spasmodic difficulty of breathing, and frequent vomiting.

On admission the abdomen was large and prominent, and the superficial veins in its lower part were dilated; the tumour, which was certainly smaller than when last examined, was lobulated but rounded in outline, slightly movable, somewhat soft to handle, but free from all sense of fluctuation. It appeared to be a softish solid mass, and was very tender. The chest was fairly resonant, but over the upper part of the right side there was dullness with loud crackling, sonorous rhonchus and harsh expiration; and over the middle third behind crepitation. He had a frequent cough and expectorated much nummulated muco-purulent fluid. The tongue was dry, red, and glazed; he was thirsty and had no appetite; the bowels were confined. He passed a great deal of water, which was turbid, acid, contained one-sixth of albumen, and some pus cells, but no casts. His pulse was quick and feeble, and his temperature ranged from 98.2° to a little over 100°. He complained much of pain across the lower half of the abdomen and in the back. His remaining clinical history is little more than a simple record of the incidents of death from asthenia. He gradually got weaker, his pulse feebler and falling from about 120 to 96, his temperature becoming subnormal. His cough and

expectoration continued, and the latter became fetid. Inflammation of both eyes supervened, resulting in ulceration of the left cornea. He became also forgetful, and wandered slightly in his mind. Abdominal pain continued until his death, which took place on June 24th, 1882. During all this period his treatment consisted mainly in the subcutaneous exhibition of morphia, which had been largely employed throughout his illness, and the administration of food and stimulants.

A curious circumstance occurred a day or two before his death which it may be worth while to record. I was discussing the case with my class, and was especially considering the fact that the original thin-walled cyst had become almost completely solid; and I proceeded to examine the patient, when to my surprise his tumour appeared thin-walled and fluctuated distinctly in almost its whole extent. It turned out that the patient in his half unconsciousness had retention of urine, and the distended bladder in the shape of a tea-cake had intruded itself temporarily between the tumour and the abdominal wall.

*Autopsy.*—The body was emaciated to the last degree. Chest: The left pleura contained a few ounces of blood-stained fluid, and the left lung was large, oedematous, and congested. The right lung was adherent over the upper lobe, but the lower part of the pleural cavity was occupied by purulent fluid. Near the anterior border of the lower lobe was an ulcerated opening the size of a shilling, by which the empyema communicated with the lung tissue. In the upper lobe was a large irregular cavity of new formation; and in the lower lobe was a smaller cavity which had opened into the pleura. No tubercles or other kind of adventitious growth was found. The remaining lung tissue was collapsed. Heart and pericardium healthy. Abdomen: A large and irregularly rounded tumour occupied the lower and anterior part of the abdominal cavity, extending from above the umbilicus into the pelvis, and displacing the intestines upwards and backwards. The distended bladder lay between the lower part of its anterior surface and the abdominal parietes. Its exact seat of origin was not determined; but its lower part extended to the bottom of the recto-vesical pouch, and it was intimately connected with the soft tissues in front of the sacrum and with the parietal peritoneum of the lower part of the sides and back of the pelvis. The tumour was a thick-walled cyst. The walls varied from about half an inch to an inch and a half in thickness, and consisted for the most part of a moderately firm, whitish, semi-translucent material. The inner surface was lined with an opaque buff-coloured mortary layer, which infiltrated the adjoining solid wall to a depth of a line or so; and here and there isolated patches having the same appearance and small hæmorrhages studded the substance of the walls. The central cavity was now comparatively small, and flattened from before backwards, but contained many ounces (probably a pint and a half) of turbid, opaque, light-brown fluid, looking much like a solution of the solid matter lining the cyst. The tumour weighed 7 lb., and was a round-celled sarcoma. A few small outlying solid growths of the same texture as the primary tumour were found in close proximity with its posterior surface. No secondary growths were discovered either in the neighbouring glands or elsewhere. The bladder was distended but healthy. The kidneys were both moderately hydronephrotic. The spleen was large and firm. All the other abdominal organs were sound. Brain healthy.

It seems to me now, looking back on the case of my poor friend, that it was in the main a very simple one; and that only a fatal issue could have been anticipated from the beginning, had one recognised the pathological character of the growth within which the cyst, so frequently tapped, had become developed. No doubt the growth from its origin was, as it proved to be ultimately, a round-celled sarcoma; and that (although the exact organ or structure in which it arose was not determined) it sprang from the cavity of the pelvis. It is clear, too, from the progress of the case, that in the beginning the vascular sarcoma broke down in its interior into a sanguineous cyst which rapidly increased in size, with probable attenuation of its walls, until it attained the dimensions presented by it on the occasion of the first tapping; and that from this time onwards there was progressive invasion of its walls by sarcomatous growth, and progressive thickening, which gradually rendered the tumour more and more solid to the touch, which, in association with the degenerative changes in the inner surface of the cyst, checked and finally arrested the enlargement due to simple fluid-accumulation, and explained equally the diminishing need for

tapping, and the reduction, at any rate for a time, of the tumour in bulk. The same process had, in fact, been going on here as one occasionally witnesses in cysto-sarcomatous tumours of the ovary, and in cystic ovarian tumours which become invaded by sarcomatous growth. The persistent constipation and frequent difficulty of micturition were obviously due to the pressure of the tumour on the pelvic organs; and the variable, and for the most part abnormal, condition of the urine was doubtless dependent on the hydronephrosis, which itself had resulted from partial obstruction of the ureters. The pulmonary abscesses and empyema were apparently unconnected with either tubercle or sarcoma, and probably the result of a low form of pneumonia determined, like the affection of the patient's eyes, by his extreme debility and imperfect circulation.

In conclusion, do these cases throw that clear light on one another that I had expected? or do they even throw any light at all on one another? I am bound to acknowledge that I think not. They both furnish examples of rapidly developing cysts with sanguineous contents. But there all real resemblance between them ceases. They illustrate the facts, however, that cysts of different origin and of different structure may so far resemble one another in the conditions of their lining membrane as to secrete morphologically and chemically identical fluid contents; and that morbid developments of the most diverse kinds may yet have common characteristics. At any rate it will be admitted, I think, that the cases are far more instructive when considered together than either of them would be taken alone.

#### ON THE COMPARATIVE INUTILITY OF ANTISEPTIC INHALATION AS AT PRESENT PRACTISED IN PHTHISIS AND OTHER DISEASES OF THE LUNGS.

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THE title of this communication will doubtless be a surprise to the advocates of antiseptic inhalation in phthisis and other diseases of the lungs. It has appeared to me that the practice of such inhalation, which is now so much in vogue, has not been shown to rest on any true or scientific basis or foundation, and further that the clinical evidence in its favour is so far singularly weak, notwithstanding the publication of a number of cases affirmed to have been benefited thereby. Under these circumstances I have been led to institute a series of experiments and observations with a view to test the efficacy of antiseptic inhalation in the class of diseases mentioned, and I will now proceed to relate the results. The principal antiseptic substances used are phenol, commonly known as carbolic acid, employed much more frequently than all the others, and to which therefore the most importance is attached; creasote, which ranks next; thymol, now coming into more general use; and iodine. Phenol, or carbolic acid,  $C_6H_5O$ , has the following properties:—It melts at  $107.9^\circ F.$  to a colourless fluid, which is slightly heavier than water. When pure it boils at  $359.6^\circ F.$ , and distils without decomposition. The crystals readily absorb moisture from the air; a hydrate,  $C_6H_5O, H_2O$ , containing 16.07 per cent. of water, and melting at  $63.0^\circ F.$ , being formed. One part of the absolute acid requires 10.7 parts by weight of water for complete solution. The solutions do not redden litmus, but the acid forms definite salts with strong bases. It is miscible in all proportions with alcohol, glacial acetic acid, and glycerine; also (when anhydrous) with ether, benzene, carbon disulphide, and chloroform. Smell and taste are much less marked in the pure than in the commercial acid. It coagulates albumen, is a powerful antiseptic and poison, and acts as a caustic on the skin. Nothing is said in books about the volatility of phenol at ordinary temperatures, yet from the powerful odour emitted one would be led to infer that it must be volatile to some small extent. With a view to test this point the following experiments were made: 0.5 grm. exposed uncovered to the air, at a temperature of about  $48.2^\circ F.$ , lost .0035 grm. in two hours, and .0071 grm. in four hours; 0.5 grm., placed under