the other tube give way? When we came to examine it, a little pinhole was found at the bottom of the chamber, and through that pinhole the germs got in. Here is a melon infusion; and, in order to show you what would have occurred if the infusions had not been protected from the floating dust of the atmosphere, we have hung beside this case two tubes that have been exposed to the common air and have fallen into a state of utter rottenness. In this way, from the Jodrell Laboratory at Kew, we have had these cases returned with their infusions perfectly intact. Even in our infected atmosphere, when we subject our infusions to experimental conditions sufficiently stringent, we are able entirely to shut out contamination, and to show that spontaneous generation never occurs. When we get clear of our atmosphere altogether, this is a matter of perfect ease and facility; and we find in Kew Gardens that nature runs her normal course.

CASE OF LARGE HYDATID TUMOUR OF THE OMENTUM TREATED SUCCESSFULLY BY A FREE INCISION, WITH ANTISEPTIC PRECAUTIONS.

By THOMAS ANNANDALE, F.R.S.E.,

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IN connection with the most instructive cases recently reported in the JOURNAL by Dr. Bradbury, I trust that a brief account of the following case may not be without interest. To Dr. Stone, my late house-surgeon, I am indebted for the notes.

M. F., aged 32, a married woman and a native of Shetland, was admitted into the Edinburgh Royal Infirmary under my care on the 11th of August last. Her history was that, about eight years before her admission and a few weeks after the birth of her first child, she noticed a small hard swelling at the lower part of the abdomen. This swelling was freely movable, gave her no uneasiness, and remained in much the same condition until about two months ago, when, soon after the birth of her fifth child, it began to increase in size and to cause pain. Her general health, too, began to fail, and she commenced to lose flesh.

When admitted, a tumour was found occupying the lower part of the abdomen. The tumour somewhat resembled in shape and size an ox's kidney, and lay across the abdomen a little below the umbilicus and towards the right side. It was freely movable, fluctuated indistinctly, and appeared to be connected with the omentum. No connection with the liver or other abdominal organs could be detected. The digestive system and general health were in a very unsatisfactory state, and both pulse and temperature were above the normal. After a week of general treatment, I requested Dr. Stone to puncture the tumour with the fine needle of an aspirator, and he accordingly drew off in this way a few ounces of a turbid fluid, which, owing to some mistake of the nurse, was thrown away before being examined. The patient expressed herself relieved by the tapping; but, a week after the operation, the tumour again increased in size and gave her more pain than formerly. The aspirator was, therefore, again used, and a small quantity of the same kind of fluid was drawn off; and, when carefully examined microscopically, hooklets of the "echinococcus" were found in it. After this second tapping, the patient became very ill, and the tumour increased rapidly in size. Her temperature was 103 deg. in the evening, and her pulse was high. She suffered also from rigors; and the tumour became more fixed, and was also more tender to the touch.

On September 19th, the tumour was as large as a child's head; and, from the patient's symptoms, it seemed evident that the tumour had suppurated, and that she must soon die if she were not relieved by the removal of the disease. On September 20th, I made a free incision in the mesial line over the tumour; and, the various layers of the abdominal walls having been divided, a large cyst was exposed. The wall of the cyst was thick and dense, and was found to be firmly adherent to the omentum and abdominal organs behind. In front, it was free. A large trocar and cannula were then passed into the cyst, but, owing to the large number of smaller cysts and their density, its contents would not pass through the cannula. Precautions having been taken to prevent any of the contents of the cyst from passing into the peritoneal cavity, which had been opened into by the incision, the cyst-wall was freely incised, when a large quantity of small hydatid cysts, floating in purulent fluid, escaped. The cyst having been in this way thoroughly emptied, the edges of the incision in the cyst-wall were stitched to those of the external wound, and two large drainage-tubes inserted into the cavity of the cyst. The whole operation was performed under the antiseptic

spray, and the usual antiseptic dressing was applied to the wound afterwards. Her progress after the operation was most satisfactory; and her pulse and temperature at once improved, and in a week were normal. The wound was daily dressed with antiseptic precautions; and the cavity of the cyst gradually contracted, leaving a small sinus, which in time also closed, and the patient was discharged cured on December 17th.

THE SUPRARENAL CAPSULE AND LYMPHATIC GROWTHS.

By P. H. PYE-SMITH, M.D., F.R.C.P.,

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IN commenting on the remarkable case of lympho-sarcoma of the thorax, which Dr. Byrom Bramwell published in the JOURNAL of January 6th, he writes as follows: "The condition of the (left) suprarenal capsule was a remarkable feature of the case, and tends to show the close physiological relation which these organs have to the lymphatic glandular system. The absence of pigmentation of the skin proves that all forms of disease of the capsules are not necessarily attended by bronzing."

If Dr. Bramwell will refer to Dr. Wilks's classical paper on Morbus Addisonii in the *Guy's Hospital Reports* for 1862, he will see that the last conclusion was even then fully established, and it has since been abundantly confirmed by the exhaustive analysis of cases of disease of the adrenals, on which Dr. Greenhow founded his well-known Croonian Lectures, which appeared in the JOURNAL during March 1875. It is only the peculiar quasi-tubercular change in both organs which produces the symptoms of Addison's disease. Primary or secondary tumours, whether cancerous or sarcomatous, hæmorrhage, hydatid, amyloid degeneration, miliary tubercle, can no more produce bronzed skin, muscular weakness, feeble pulse, nausea and cerebral symptoms, than cancer, or hydatid, or calculus of one kidney can produce the symptoms of Bright's disease. True carcinoma, in the histological sense, probably never affects the adrenals (or any other organ without an epithelial surface) except as a secondary disease. But among the twenty-three cases in Groups VIII and X of Dr. Greenhow's list (*On Addison's Disease*, 1875, pp. 208, 210) there are several of various forms of sarcoma which in their clinical features were, like Dr. Bramwell's, malignant, and almost always secondary.

Almost all cases of primary intrathoracic growths are only clinically cancerous, and the majority are, like Dr. Bramwell's, lympho-sarcomata. This is the conclusion from Dr. Risdon Bennett's cases in his monograph on *Intrathoracic Growths* (1872), as well as from the numerous cases recorded in the *Pathological Transactions*. At one end, the series of these lympho-sarcomata approaches cancer, but, at the other, they become indistinguishable from the lymph-adenomata of Cornil and Ranvier. These again pass into the multiple glandular hypertrophy of Hodgkin and Wilks, and so by anæmia lymphatica to anæmia splenica, or true leucæmia. Dr. Bramwell does not state what were the microscopical characters of the blood in his case, during life or after death. Probably there was only anæmia without the increase of leucocytes, since even in the most "constitutional" and least "cancerous", i.e., the most multiple and least destructive form of Hodgkin's disease, it is doubtful whether true leucæmia has ever been observed.

A recent writer in another medical journal described a typical case of anæmia lymphatica as something new in this country, and announced the discovery of a similar condition, under the name "adénie", by Trousseau. The late eloquent professor at the Hôtel-Dieu made no such pretension. He says: "D'abord, messieurs, qu'il soit bien entendu que je n'ai rien découvert, que la description de la maladie a été assez bien faite avant moi; en Angleterre par M. Hodgkin (1832); en France, par un de mes élèves, M. Bonfils (1856); et en Suisse, par M. Cossy (1861)". (*Clin. Méd.*, tome iii, p. 569.) He afterwards mentions Dr. Wilks's name, who in the *Guy's Hospital Reports* for 1856, had accurately described the disease under its most appropriate title, "anæmia lymphatica". See also Virchow's comments (*Krankhafte Geschwülste*, Bd. ii, S. 619). I must not trespass on space by further references, but it is worth while recalling the labours of our own pathologists when they are so soon forgotten. In a late discussion on the subject, not only was the anæmia lymphatica of Hodgkin and Wilks confused by some speakers with the allied leucæmia splenica discovered by Virchow, but two other entirely unconnected diseases were brought in as allies—viz., idiopathic anæmia, first and completely described by Addison (*Works*, p. 212), since rediscovered and named "pernicious" by Biermer and others, and the totally distinct disease which is more generally connected with the same physician's name as morbus Addisonii. In a recent work on Medicine, it is stated that in the latter disease the white blood-corpuscles are sometimes increased