Oct. 13th.—Saw H.; his work being at a distance, he was unable to attend to have the current applied, but had continued taking the iodide regularly. There was still an improvement in the movements of the cords, the left continuing to progress faster than the right; the catarrh had almost disappeared; there was still some dyspnœa on making exertion. I did not see the patient after this.

This is, I believe, the thirty-sixth recorded case of this condition. Burow gives thirty-five in his table, but he counts one case twice over, as it was under the care of two physicians at different times. At the end of his paper, however, he mentions that while engaged on his proofs another case has come under his notice, which brings his number again up to thirty-five.

I find only three cases in which a syphilitic etiology is given, in only one of which—Hansen's—is an improvement recorded. That my case had a syphilitic origin cannot, I think, be doubted, taking into consideration the distinct history, and the prompt effect of the iodide. The small abscess I do not consider had any bearing on the case, as it was quite superficial, and rapid in its formation and disappearance. I would also remark that a probable cause of the improvement was the early application of the patient for relief before the disease had made too decided an advance.

ART. III.—*Cases illustrating the Advantages attending the Use of the Hypodermic Syringe in Medical Diagnosis.* By DAVID DRUMMOND, M.A., M.D., Univ. Dubl.; Physician to, and Joint Lecturer on Clinical Medicine at, the Newcastle-on-Tyne Infirmary; Senior Physician to the Children's Hospital, Newcastle-on-Tyne; Lecturer on Physiology, Durham University.

IN an article on "The Routine Use of the Hypodermic Syringe as an Aid to Diagnosis," in *The Lancet*, Nov. 1st, 1879, Dr. Greenfield, in a measure, apologises for bringing such a subject before the notice of the profession, and doubts not that many "may consider any advocacy of its use a work of supererogation." Such an apology I think unnecessary, considering that few of the text-books in common use amongst students advert even in a superficial manner to the "needle" as an aid to diagnosis, and also that comparatively few physicians resort to it in cases of difficulty, preferring rather to remain in a state of uncertainty—in fact, like the ophthalmoscope, viewing it too often as an instrument for a special purpose,

and not to be brought into general use. That such is the case becomes apparent when the fact is instanced that in the Newcastle Infirmary—where many of the class in clinical medicine are “foreign” students coming from various schools, metropolitan (English, Irish, Scotch) and provincial (English), for the degree of M.B., Durham University—astonishment is often expressed at the way in which the needle is employed. The fact, then, that even a few “senior” men have not been accustomed to see the diagnosis verified by the withdrawal of fluid, cells, &c., shows beyond doubt the truth of the statement made above—viz., that the syringe is not in general use as an aid to diagnosis. The “needle” has been termed an aid to diagnosis—a term which suggests that its utility is subordinate and partial, and that the evidence which can be elicited by its use may, when thrown into the balance, weigh as an increment in the diagnosis one way or the other. Such a view is inaccurate and misleading, for oftentimes it happens that the information yielded by the syringe will cause the hitherto chaotic signs to range themselves into an intelligible form, pointing to an accurate diagnosis. Of this I am fully persuaded, that with the frequent and routine use of the “needle” would disappear, in a great measure, the apparent discrepancies between the diagnosis of the clinical physician and of the pathologist.

That a fine needle may be thrust into important vital organs without producing any untoward result, is a fact well known to all who are in the habit of employing it frequently. I have punctured the kidney, the lungs, and the liver, of necessity wounding the pleura and peritoneum, which serous membranes can, with ordinary precautions, be punctured without any risk—I certainly have never seen any harm done by the procedure.

The pain inflicted is but slight, and when the point of the needle is sharp, does not exceed that attending the administration of a subcutaneous injection. As the object of this communication is to instance cases wherein marked service has been rendered by the “needle,” and to urge its more frequent use, it is unnecessary to extend the preamble, and as a few cases will serve the purpose, it will be desirable to pick out those more obviously dependent upon its employment for a correct diagnosis.

CASE I.—In a well-marked case of aneurism (sacculated) of the arch of the thoracic aorta, springing from the junction of the transverse and descending portions, in a man, which pulsated in the second left interspace, causing a bulging of that portion of the chest wall, the left lung

posteriorly was absolutely dull on percussion. There was a history of pain over that region. On auscultation the respiratory sounds were almost inaudible; the vocal resonance, which was with difficulty tested, owing to paralysis of the right vocal cord causing partial aphonia, was markedly diminished. Dyspnœa was considerable. From the physical signs it was thought that most probably fluid occupied the left pleural cavity. The diagnosis was important not only as a matter of clinical interest by which the "class" would be benefited, but also as assisting materially in the *expressed* prognosis in the case. The history, as far as it related to the condition of lung, was rather one of phthisis than of pleurisy with effusion, the patient being much more emaciated than is usually found in cases of thoracic aneurism, even though complicated with effusion. In the North of England, where thoracic aneurisms are so common, it is not at all unusual to meet with them in cases of phthisis. At the same time, there was the duplex finger-post pointing to the direction of effusion—viz., absence of respiratory sounds and diminished vocal resonance. On puncturing the chest wall with a fine hypodermic needle, only a drop or two of blood was drawn off, showing the lung to be consolidated. Some weeks afterwards, on the case suddenly terminating by rupture of the sac into the left bronchial tube, the diagnosis was verified, the left lung being in a state of caseous consolidation, the sac having pressed on the left bronchial tube, almost occluding it, thus preventing the air from passing to the consolidated lung, thereby accounting for the diminished vocal and breath sounds. In this case the needle was of marked service, for had the information yielded by the ordinary methods of investigation been trusted to implicitly, and the diagnosis made of effusion, which was warranted by the physical signs present—viz., dullness, with diminished vocal and breath sounds, following pain in the side, which subsequently abated—the confidence of the "class" in the teaching of the schools and in the ability of the teacher would, I take it, have been considerably shaken had the thorax been tapped by the aspirator; but being accustomed to see the needle employed frequently, it was not thought strange that the diagnosis was withheld until the case had been fully investigated, and all the plans called into requisition which were likely to throw light on the condition.

CASE II.—A patient (male, aged thirty-one) suffering from great enlargement of the liver, the right lobe of which reached down to the crest of the ilium, was admitted into the Newcastle Infirmary, having, like the woman of old, "suffered many things of many physicians," who expressed themselves variously concerning his complaint—viz., pleurisy, with effusion pushing down the liver, abscess of the liver, amyloid disease, carcinoma of the liver, with effusion into the right pleural cavity, &c. The case, on admission, was viewed as carcinoma, though the diagnosis was not altogether easy, for the absence of distinct nodules (at first), of

jaundice and ascites, taken into consideration with the history, which was extremely doubtful, inasmuch as it failed altogether to tally with the *present condition*—being to the effect that the enlargement came on suddenly, *i.e.*, in a few hours, also that the patient had followed his employment (miner) to within six or seven weeks before admission—made the case difficult to fathom. The right lung posteriorly was markedly dull on percussion, the vocal and breath sounds being almost entirely absent, thus accounting for the diagnosis of effusion made by the earlier medical attendants. A puncture into the lung and liver (twice) settled the diagnosis of cancer of the latter organ, which was verified a week or two subsequently, the syringe drawing off a number of large, irregularly shaped caudate cells, with several nuclei and some round cells like pus. The diagnosis was materially assisted—in fact, was only rendered certain—by the use of the syringe.

CASE III.—A boy aged eight, was admitted, under my care, into the Children's Hospital, complaining of pain, especially when passing water, down the penis. He was considerably emaciated, and passed a large quantity of pus in the urine. The skin was dry, the temperature being continuously "sub-febrile." Now and again a rigor initiated a period of prostration, with loss of appetite, which lasted a few days. It was thought that he was suffering from stone in the bladder, but on being carefully sounded by Dr. Page, one of the surgeons to the hospital, no stone could be discovered. Whilst under chloroform it was noticed that the left kidney was somewhat larger than the right—*i.e.*, it could be grasped more easily—and although no pain had ever been complained of in the lumbar regions, or in any part of the abdomen, thinking that the kidney might be the origin of the pus, as the bladder was apparently healthy, I punctured the left kidney from behind, and succeeded in drawing off a considerable quantity of pus, mixed, as a matter of course, with blood. A few days subsequently, convinced of the presence of pus, I aspirated the left kidney and drew off six ounces of purulent matter mixed with urine and blood—a far larger quantity than was anticipated from palpation, the region being apparently normal—nor was any complaint of pain made even on rather rough manipulation. I think it will be acceded that by no other means could the lesion have, with certainty, been localised. Since the puncture the boy has improved considerably in his appetite and weight, which alteration has been accompanied by an amelioration of the pain.

Many cases, quite as much to the point, could be adduced; but, fearful of trespassing too much, I have confined myself to a few in which the diagnosis was almost wholly dependent upon the information supplied by the syringe, and have not touched at all upon the great advantage attending its routine employment.