opinion usually entertained respecting the nature of these two diseases, we hesitate to refer them to a common origin, the chronic induration being limited, transient, and rather inflammatory, the cancer being permanent and aggressive. Yet, as the study of new growths advances, even such differences more and more lose importance, not, indeed, as to the probable issue of the dissimilar diseases, but certainly, as it seems to me, in respect to their cause.

I proceed to give brief and selected evidence of the opinions thus advanced.

Several years ago, my attention was first attracted to the subject by observing the large proportion of cases of mammary cancer in which fibrous tumours existed in the uterus; especially tumours small, pendulous, lying at the fundus, and liable to constant movement amongst the coils of the intestines. Further observations amongst the living have supplied such evidence as the following of the origin of mammary disease in uterine irritation.

Disordered Menstruation, Glandular Tumour, and Chronic Induration of the Mammæ.—Dr. Peregrine did me the favour to send to me an unmarried lady on account of the state of her breasts. She began to menstruate at twelve years of age, and the discharge, which continued on every occasion for twelve days at a time, recurred regularly every three weeks. During her early womanhood, she was greatly exhausted by this sometimes copious depletion; but after some years, she recovered strength, and became ordinarily stout. The catamenial discharge, however, continuing in excess, she had, at twenty-nine years of age, three tumours in the right breast; one of these was a soft moveable glandular tumour, and superficial; the other two were deeply seated, indistinct, not hard, and as large as half walnuts. They appeared to be inflammatory indurations of the breast tissue. In the left breast, many of the lobules were enlarged into dense, small, nodular swellings. Obviously, the whole disease was innocent, and, though taking three forms, was dependent on the state of the pelvic generative organs.

Enlargement and Induration of Lobules of the Left Mamma disappearing on the relief of Uterine Disease.—A lady of about forty, but apparently younger, was sent to me by Mr. Whipple, of Plymouth. She had several dense nodular swellings of the acini in the left mamma, and one, firm, smooth, quoit-shaped, and mixed with the breast tissues behind the areola. In the axilla, on the same side, were four separate, firm, enlarged glands. The combination of axillary with the mammary tumours appeared to indicate that both were cancerous; but the history was very distinct, that those in the breast were recent, while the axillary glands had been enlarged for seven years. There was considerable uterine discomfort and painful menstruation.

In the course of three months, during which a lotion of lead was worn on the breast, and the uterine symptoms were much relieved under the treatment of Dr. Barnes, the mammary swellings, and even the firm broad tumour behind the areola, disappeared. The axillary glands, however, enlarged a little in size and increased in number.

Large Uterine and Mammary Tumours; the former preceding.—An unmarried lady, aged thirty-four, consulted me for a very large fibroplastic tumour in the left breast, there being, also, uterine tumours of much longer date than it, and so large as to deform the abdomen.

Obscure Ovarian Irritation: Chronic Induration and doubtful Cancer of Mammæ; the former subsiding. Removal of one Breast.—Dr. Rowe, of Margate, sent a lady, aged forty-six, to me in November, 1867. She had tumours in the substance of both breasts—firm, flattened, moveable only with the breast tissue. Two of them were symmetrical, being behind the areola, but the nipples were not drawn in. There was no axillary disease on either side. The catamenia, usually moderate and punctual, were three weeks overdue; and, during this time, there had been a feeling of heat about the breasts, and uneasiness extending down the body to the region (which she pretty accurately described) of both ovaries. Though the tumours appeared to be cancerous, there was an evident connection between them and some reflected ovarian irritation.

Under treatment, all these swellings diminished, but, at the same time, the axillary glands on both sides became a little swelled. In June, 1869, Dr. Rowe found the left breast and both axillæ healthy; but, there being still a hard tumour on the right side, as a matter of precaution, he removed that breast. The tumour proved to be a dense, not scirrhus, mass of mixed fibrous tissue, with nuclei.

I have since seen this lady, and satisfied myself that the entire disease in the remaining breast has disappeared.

Uterine Ailment, with Chronic Induration and Cancer in the Left Mamma.—Mr. Swindell, of Whetstone, brought to me an unmarried lady, aged thirty-four, having some moderately firm and apparently inflammatory indurations of parts of the right breast, with cedema. She had leucorrhœa, and scanty and painful menstruation, and she was highly hysterical and over sensitive. The engorgement of the breasts appeared to be

due to the state of the pelvic organs, and it lessened under treatment. Fifteen months afterwards, though the hysterical and the uterine symptoms were relieved, and the general health had improved, one of the swellings became larger and hard, and the lymphatics were swollen. The breast being removed by my advice, but by another surgeon in one of the hospitals, the disease constituting the principal tumour proved to be scirrhus; and, at the present time, two and a half years later, there are cancerous nodules near the scar.

Cancer of the Breast, following long and severe Uterine Disease.—A middle-aged, somewhat hysterical lady, who had long had uterine disease, and undergone division of the cervix uteri on account of it, was brought to me with an elongated, hard tumour in the left breast. When first observed, but three months before, it was no larger than a walnut; it was now five inches by four inches in its principal diameter, and nearly two inches thick. The tumour, on the removal of the breast, was found to be an ordinary scirrhus, and there were similar separate nodules in the adjoining healthy parts of the breast. In this case, Dr. Routh distinguished uterine disease by the characters of the mammary tumour.

Protracted and severe Uterine Disease. Cancer of the Breast.—In a somewhat similar case, kindly referred to me by Mr. De Morgan, swelling and ulceration of the os uteri, with pain, began three months after marriage, and continued for fifteen years. During that time, the lady was necessarily separated from her husband; and she underwent much treatment, having the cervix uteri slit, and the os wholly destroyed. At the end of that time, there were swellings in both breasts, that in the left being an indistinct and apparently inflammatory thickening, while those in the right were scirrhus cancer, adherent both to the pectoral muscle and to the skin.

Several patients, who had previously been under the care of Dr. Protheroe Smith for uterine disease, were kindly referred to me by him, on the supervision of tumours in the mammæ; and in all of them, except those in whom operation was not advised, the diagnosis of cancer in the breast was confirmed. In one of these cases, a lady, aged fifty-six, there were tumours in both breasts, of which, that on the left side only was cancer. The mammary tumour first attracted attention, and I took occasion to refer to Dr. Protheroe Smith the question of their originating in uterine disease. That gentleman ascertained, on examination, that there had long been discomfort and irksome frequent micturition, and that the uterus was in a state of rather extreme and permanent flexion.

There appears to be reason to conclude that, however various other causes may be, whether of innocent or malignant tumours in the breast, yet, uterine or ovarian ailment precedes, with an observable frequency, the development of some mammary disease; that this disease may occupy either breast, or both; that, in its nature, it may be a transient, though chronic, induration of a segment of the breast, which may not be a strictly anatomical segment; that it may be a dense nodular enlargement of many of the lobules; that it may be an innocent glandular tumour; that mammary tumours, differing in construction, though alike in cause, may thus co-exist in the same person; that of concurrent tumours, not at first distinguishable from one another, some may subside on the abatement of the uterine symptoms, and one take the course of cancer; that mammary disease, following prolonged uterine ailment, may be cancer from the first.

ON SOME OF THE ADVANTAGES OF TAPPING IN THE TREATMENT OF OVARIAN TUMOURS.*

By GEORGE SOUTHAM, F.R.C.S. Eng.,
Surgeon to the Manchester Royal Infirmary.

IN recording the improvements in surgery during the nineteenth century, the future historian will no doubt ascribe to the present generation the merit of having established ovariectomy as a legitimate operation. As one of its earliest advocates ("Cases of Ovariectomy": *London Medical Gazette*, 1843; *Provincial Medical Journal*, 1845; *Provincial Transactions*, 1847), I naturally feel a deep interest in its success; but when I consider the high rate of mortality still attending it—admitted by the most experienced operators to be nearly one in three cases, and that the disease which it is intended to eradicate rarely destroys life for several years—I must confess that a grave responsibility attaches to the surgeon who recommends its adoption, as long as more simple means will keep the growth of the tumour in check and the patient's general health unimpaired.

* Read in the Surgical Section at the Annual Meeting of the British Medical Association in Leeds, July 1869.

Amongst these means, tapping appears to be the chief remedy; and believing that by its aid life may frequently be prolonged, and the success of ovariectomy not only not interfered with, but actually promoted, I beg to offer a few remarks on the advantages of this simple operation, which I trust may not be unacceptable to my professional brethren.

Medical literature supplies us with a few instances where tapping has sometimes arrested the disease for so long a time, that it has almost been regarded in the light of a cure. Three examples at least of this kind have come under my own notice; and my experience leads me to think that in cases judiciously selected the operation, if carefully performed, may be more frequently successful than is generally supposed.

In 1843, Mrs. G. of Salford consulted me respecting the propriety of the extirpation of a tumour, from which she had been suffering about three years. She was then thirty-three years of age, married, and had four children, the youngest two years old. In company with the late Mr. Thomas Slack, her surgeon, I made a careful examination. We found the abdomen much distended, the swelling caused apparently by fluid. As the patient was in a feeble state of health, we decided upon tapping, and drew off twenty quarts of a clear fluid of low specific gravity. The operation was followed by some constitutional disturbance, but in three weeks she seemed to have completely recovered. About twelve months afterwards, the abdominal swelling returned, and, at the end of two years from the former operation, the distension was so large that we had again recourse to the tapping, and removed twenty-two quarts of fluid. Her recovery was most favourable. At the end of a fortnight, she was able to resume her domestic duties, and remained in a satisfactory state of health until 1864, a period of nineteen years. Since that time, however, the swelling has gradually returned, but so slowly as to occasion little or no inconvenience, until the last few months; and, though the abdomen is considerably enlarged, she feels at present no necessity for operative interference. She is now in her sixtieth year, and to all appearance in better health than when she first consulted me twenty-six years ago.

In 1843, I was requested by Dr. G. C. Watson of Chester to visit with him Miss S., aged 25, residing in Liverpool, who was suffering from an ovarian tumour, the removal of which two gentlemen, who had made this disease a speciality, had recommended. A careful examination convinced us that the tumour was a unilocular cyst; and, as the patient appeared in good health, we advised tapping. The operation was performed by Dr. Watson with a medium-sized trochar, and between five and six quarts of a semi-transparent viscid fluid removed. The patient's recovery was rapid and complete; and, at the end of five years, when I last heard of her, there had been no return of the disease; and Dr. Watson informs me that from that time he has had no reason to suppose that she has not remained perfectly well.

In July 1867, Miss M., aged 25, asked my advice respecting an ovarian tumour that had been developing itself about three years, and which she had been urged to have removed. It appeared to consist mainly of fluid contained in a single cyst, and her health was not in the least impaired. I therefore recommended her to be tapped. Six quarts of clear viscid fluid were removed. She speedily recovered, and, on a careful examination made only a short time ago, I could detect no return of the swelling.

Such favourable results as the above are only to be expected when the disease consists of one or perhaps two cysts; but, as a fair proportion of ovarian tumours assume this character, the possibility of recovery after tapping ought not to be overlooked in their treatment. It must, however, be admitted that the beneficial effects of the operation are frequently only temporary, and therefore it ought not to be undertaken if likely to hinder the successful performance of ovariectomy.

Fortunately, this evil result is not often to be apprehended: on the contrary, one or two tapplings, especially when the cyst has obtained a considerable size, are usually succeeded by a marked improvement in the patient's health, and by a reduction of the original tumour, so that only a moderate incision through the abdominal parietes will be necessary for its extraction; both of which conditions are favourable to the success of the major operation.

Amongst the cases of ovariectomy that have come under my notice, several have been those of patients in comparatively good health, where the tumours were of recent formation, of moderate size, and free from adhesions, and the operation itself, therefore, of the simplest description; but the results have not been so satisfactory as in cases of longer standing, and of a more complicated character—acute peritonitis being usually the cause of death in the former, shock and its consequences in the latter. The tendency of the peritoneum, therefore, to inflammatory action seems to diminish with the duration of the disease, probably on account of the continued friction of this membrane against the surface of the cyst diminishing its sensitiveness.

Accordingly, in the earlier stages of the disease, whether the tumour consisted of single or of multilocular cysts, it has for some time been my custom to advise a postponement of ovariectomy; tapping the tumour once or twice, when it has become inconveniently large. Since adopting this plan, I have removed seven diseased ovaries, and in only one case was the operation fatal. Five of the patients had been tapped once, one twice, and one three times, the fatal case being among the first five. The recovery of those tapped only once was the most rapid, although in three of them the tumours were multilocular cysts. The two tapped more than once made favourable progress; but their complete restoration was not accomplished for several weeks, owing probably to the fluid in the cysts having become purulent after the second operation in one, and after the third in the other. Suppuration of the cyst I have not unfrequently found to be the consequence of repeated tapplings; and, therefore, it is a matter of doubt whether the operation should be undertaken more than once or twice, as its repetition may diminish the chance of successful ovariectomy. The experience of Mr. Spencer Wells is also favourable to a preliminary tapping; for he found that, whilst the average mortality in 135 cases, where the patients had never been tapped, was 27.40 per cent., where the patients had been tapped once, the mortality was only 25.64 per cent. (*Proceedings of the Royal Medical and Surgical Society*, 1869).

It is scarcely necessary to dwell on the advantages of tapping in clearing up any doubtful points in the diagnosis of abdominal tumours; for no one, I think, would resort to extirpation in such cases until he had first ascertained the nature and connections of the disease, for which purpose tapping has not unfrequently been found most useful.

In offering these remarks on the tapping of ovarian cysts, I must not omit to notice the mode of performing the operation, especially as, when ovariectomy was in its infancy, I first called attention to the dangers which attended its performance (*London Medical Gazette*, 1843).

It was then the custom to use a full sized trochar; the patient was seated on a chair, and, to ensure the complete expulsion of the contents of the cyst, the abdomen was compressed with towels by the operator's assistants. Additional force was also often applied by pressing the abdomen with the hands, whereby considerable violence was sometimes inflicted on the peritoneum and the contents of the abdomen, which, with the frequent entrance of air through the trochar into the cyst, often led either to inflammation of its walls or of the peritoneum.

The present mode of operation is comparatively free from these dangers. The patient is allowed to recline in bed or on a couch. A small sized trochar with a stop-cock is employed, to which is attached a long piece of elastic tubing for conveying the fluid to an utensil placed near the patient; which tubing, when used on the principle of the syphon, as recommended by my colleague, Dr. Roberts, excludes all air from the cyst. The fluid, by this means, is removed very slowly, and thus faintness is prevented, whilst the gradual contraction of the cyst and abdominal parietes renders it unnecessary either to press the abdomen with bandages or with the hands, and the risk of peritoneal inflammation is lessened. By attending to these precautions, tapping, which was formerly often accompanied with considerable danger, has become one of the simplest and safest operations in surgery.

HOSPITAL VERSUS HOME PRACTICE.

By J. MATTHEWS DUNCAN, M.D., Edinburgh.

[Continued from page 435 of last number.]

As in my former paper, devoted to a consideration of the value of the data adduced by the enemies of hospitals, I have not expressed my own opinion about the merits and demerits of these institutions; so, in this paper, I shall consider the reasoning (against hospitals) into which the abovementioned data are introduced, without entering on their good and bad qualities.

I must, preliminarily, express my disapproval of attaching to them the designations of "palaces" and "palatial structures." This is either a monstrous error of description, or it is a miserable specimen of grim and thoughtless irony.

A statistical argument is entirely, or almost entirely, based on figures. In the natural course, then, its conclusion demands and obtains unanimous assent, if there be no flaw in the reasoning. It is nearly like a mathematical demonstration. When, therefore, we find the conclusions of a statistical argument, such as that against hospitals, meeting with incredulity and opposition, we have to go back to the arguments in order to consider the data and the reasoning. The former I have already discussed; I now turn to the latter.

Before doing so, I may remark that students often find the conclu-