Every individual, every municipality, every province, as well as our Federal Government, has a special duty in this crusade to fight a disease which has attacked over one-half of our homes.

By increasing the efficiency of the means now at our disposal, by the introduction of such measures where none obtain, and by earnest, active, aggressive work of education our large annual mortality should soon show a marked decrease.

THE SIGNIFICANCE OF SOME ENLARGEMENTS OF THE THYROID GLAND.*

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My object in writing this is to attempt to explain the occurrence of some simple enlargements of the thyroid gland. The condition has been, if I may venture to say so, largely overlooked by medical and surgical authors. For convenience of description I shall adopt the term used by Robinson¹ as a generic term for all enlargements of the thyroid, namely, "thyreoele," to denote the condition I wish to emphasize. Etymologically the word just describes the condition, and means a swelling of the thyroid gland pure and simple. The characteristics of the swelling are as follows:

There is a fullness in the lower zone of the neck, sometimes symmetrical, but fairly frequently more marked on the right side than the left. In some cases it has amounted to a bulging disfigurement, and it has then attracted the attention of the patient. In other cases the neck is distinctly full, but, owing to absence of pain or inconvenience, the patient has either not observed it or has regarded it as of no importance. When fullness amounts to antero-posterior bulging, however slight, I have regarded it as a departure from normal, and I have taken it that the thyroid gland was enlarged. In some cases the bulging has been slightly pendulous, resting on the clavicles, and in others it has disappeared behind the clavicles and entered the thorax. The enlargement has been at first in almost every case a uniform one. The majority have been markedly soft and quite homogeneous, but some have shown nodules and thickenings, and these have become much more marked as the effect of treatment. It must also be remembered that, as a rule which admits of few exceptions, the enlarged thyroid is larger than external configuration alone will imply, since, besides coming forward, it sinks deeply into the neck.

The general condition of my cases has varied much. In the majority the aspect has been one of good health. In others nutrition has been of medium quality, and in a few the patient has appeared unhealthy. In no single instance have I observed any nervous excitement or instability at first. Their mental condition has been rather torpid, and some have suggested the hebetude of myxoedema. None of them showed at first any increase in pulse-rate or alteration in its quality from normal. In a few, complaint has been made of discomfort in the neck or even of actual dyspnoea on exertion, and in more than one there was slight noisy stridorous breathing at intervals. The skin has been normal in some of my cases, in others it has been remarkably dry, and in one actually scaly, the appearance in this case presenting some suspicions of myxoedema. Exophthalmos has been absent in all of them.

It is necessary to determine the pathological status of this thyreoele. Robinson states that the first point of departure from the normal thyroid is one due to hyperaemia, which he recognizes as being consequent upon other as well as on endemic causes. In this type he adds that the swelling is characterized by its temporary duration, and cannot be spoken of as "goitre." Should this hyperaemia be arterial and continuous, or repeated at frequent intervals, it will lead to a general enlargement of the gland, and an exaggeration of its normal structure. This he terms a simple goitre. The gland is soft and compressible, it appears somewhat coarser in section, the vesicles are larger and contain an increase of the viscid

secretion. I believe this process to be one of genuine overgrowth of normal tissue.

It will be remembered that Hürthle² showed that the colloid makes its way into the lymphatic spaces around the alveoli, and thus into the general circulation by means of minute canaliculi proceeding between the cells. It does not require much imagination to infer that when the cells become larger, due to increased physiological activity, these canaliculi tend to close by the contiguous pressure of the cells, and thus the gland will become overdistended and the alveoli dilated. At this stage the goitre is termed parenchymatous.

Repeated and prolonged hyperaemias will lead to an overgrowth of the fibrous stroma of the gland in proportion to the intensity of the hyperaemia. The process goes on, and some of the cysts increase much in size. At the same time encapsuled masses of gland tissue more or less completely developed, but some retaining the fetal type, which are present most probably in all glands, take on active growth, in their turn become cystic, and the evolution of the cystic adenoma or bronchocele is complete.

The cases that I have observed look and feel like a simple enlargement in which no gross change has taken place. Unfortunately for the interests of science, slight thyreoele is not a mortal disease, and a pathological investigation of it could only be made where the patient died of some intercurrent disease. It has not been my lot to meet with such an opportunity.

What, then, are the conditions which excite this overgrowth of the thyroid?

In order to determine them, these further points must be considered:

- I. The function of the thyroid gland and its relationship to
 - (a) Variations in metabolism occurring in
 - i. Growth and development.
 - ii. Irregular habits of body.
 - iii. The performance of the female functions of menstruation and pregnancy.
 - iv. Chlorosis.
 - (b) Endemic influences.
 - (c) Hereditary influence.
- II. The treatment of thyreoele.

(i) Altered conditions of metabolism involved in growth and development. In a good number of my cases the swelling in the neck developed during childhood and before the onset of menstruation. In two the swelling was first noticed in infancy. It was coincident with a falling off of good condition, and improved with a recovery of normal good health.

The phenomena of myxoedema make it quite indisputable that the thyroid secretion, which beyond doubt is deficient in this disease, has a profound effect on the metabolism of the body.

The complete arrest of growth that occurs in cretinism, and the remarkable reawakening of growth and development which occurs on the exhibition of thyroid extract in this disease, support this view. Such cases have been reported by Thomson,³ Byrom Bramwell,⁴ and Murray,⁵ and there is a case on record where growth occurred even after twenty years of secondary cretinism.

Murray quotes von Eiselsberg's experiments on three lambs. Two he submitted to complete thyroidectomy, and kept the third as a control. After three months the two weighed 28 kg., whereas the other alone weighed 35 kg.

The thyroid secretion stands out as a great and unique stimulant to general metabolism, and is intimately concerned with the stimulation of growth in the young.

I have repeatedly felt the thyroid to be much larger than normal, although not producing visible swelling, in the necks of children who have not reached their teens.

(ii) Even in these early cases, where rapid growth throws extraordinary strain on all glands concerned in metabolism, the second cause often is operating—namely, irregular habits of body, involving imperfect elaboration of effete material, and torpid excretion. The modern "cramming" of the Board schools, confinement in badly-ventilated buildings, lack of due exercise in many cases, and habitual constipation all tend to throw strain on the thyroid which regulates the output of urea, and stimulates the elaboration of the nitrogenous portion of tissue-waste. It must not be forgotten, either, in this connexion, that in the female sex it is a proved fact that excretion is poorly per-

* Read before the Staffordshire Branch of the British Medical Association, being extracts from a thesis for the degree of M.D. of the Victoria University of Manchester.

formed as compared to that of man. Thus Oliver⁶ says, in discussing the greater frequency of lead poisoning in the female:

In the female sex not only is metabolism less active, but excretion is not so well performed; women, for example, suffer more from constipation than men; and although they pass relatively as large a quantity of urine as men, it has a lower specific gravity, and is relatively deficient in solids, particularly in urea. The elimination of nitrogen, therefore, is not so perfect as in men, and it is disturbed by the return of each menstrual period. Add to the effects of diminished nitrogenous metabolism and to variations in renal excretion those of constipation and irregular, profuse, or scanty menstruation, and we probably have the explanation of the greater susceptibility of women to lead poisoning than of men.

(iii) When the age of puberty is reached, changes of a different character begin to operate. Growth is more active than ever, and with the onset of activity of the generative organs, the vitality of all parts of the organism is raised, and the glands involved in metabolism are put to unprecedented strain; especially is this so in the female sex. For, consider the constitutional phenomena of menstruation, which all point to a more active tissue change. Barnes, in a very clever paper, some years ago drew an analogy between the changes of menstruation and the changes of pregnancy and the puerperium, the one being a repetition of the other in many respects on a larger scale.

From this argument it is an easy step to pass to the necessity for increased thyroid function under the above-mentioned conditions. That the thyroid does enlarge with menstruation is a well-established fact. It is stated to do so by many authorities, including Berry and Murray. Ord⁷ is also strongly of this opinion, and says, moreover, that there can be no doubt of the frequent existence of an active congestion, bordering on an inflammatory condition, occurring in the thyroid gland at the time of menstruation.

In five of my cases this thyrocele has been observed within a few months of onset of menstruation. However it be in the case of a normal gland, I am quite convinced that changes occur in enlarged glands at the menstrual epoch. A good number of patients have assured me that their goitres are larger during menstruation, and some experience attacks of dysphagia and dyspnoea during the period, and at that time alone. A history of difficult and painful menstruation has been obtained from a few of my cases.

Jenks⁸ of Philadelphia in 1881 read a paper on the thyroid enlargement of menstruation and pregnancy, in which he detailed the story of six daughters of one family who, during the onset and regular establishing of menstruation which was difficult, developed a thyrocele, each in her turn. By the time they had reached a marriageable age the swelling had resolved. He had also observed three other similar cases. The abnormally large amount of utricular secretion which is reabsorbed in these cases will make further call upon the powers of excretion of the organism. Attention to the regular establishment of easy menstruation has been followed in his cases by marked decrease in size of thyroid.

If these phenomena of menstruation are of importance in metabolism, how much more so are those of pregnancy? The enlarged thyroid of pregnancy has been peculiarly neglected by English observers. French observers have paid attention to this matter. Natalis Guillot, Luton, and Tarnier observed and reported it. Since having my attention drawn to the point I have been able to examine the necks of a considerable number of women who were advanced beyond the fifth month of pregnancy. In only one was the thyroid not felt. None of these was conscious of any swelling in the neck.

Of my series of thyrocele, 9 gave a history of having first noticed the swelling in the neck during a pregnancy, 3 during the first, 2 after the second, 3 during the last pregnancy, and another on the morning after her first confinement. Those who had had several pregnancies after noticing the swelling all said, without hesitation, that the swelling increased with each successive pregnancy, and subsided, but never completely, after delivery; it always remained slightly larger than it was before the pregnancy. This hypertrophy is to be explained in the same way as those which have been dealt with above.

A study of the etiological tables of thyroid diseases will emphasize further the relatively greater importance of the

thyroid function in women than men, which I believe to be due to the extreme tension and alteration of the usual conditions incident upon menstruation and pregnancy, for which there is no analogue in the male sex.

In the whole gamut of thyroid diseases the female is seen to be far more frequently at fault than the male. Thus Sir T. Watson, taking a total of three lists, found that out of 360 cases of thyroid disease, 330 were women. In myxoedema the comparison is more striking. In 370 cases collected by Murray, 322 were women. Run and Prudden⁹ collected 150 cases, 113 of whom were women. From their table it is evident that between 35 and 45 years, and especially between 40 and 45 years of age, women are most prone to develop the malady. It is thus seen that the occurrence of the disease is coincident with the waning of the reproductive function, and with the end of the repeated strain upon the thyroid gland entailed in menstruation and pregnancy, where, as has been shown, changes in the thyroid of a quasi-inflammatory nature occur. In support of this it will be seen, too, that the disease is much more prevalent in parous than in nulliparous women. In 64 statement is made about family. Four were nulliparous. The 60 women had borne 300 children and had had 29 miscarriages. The quasi-inflammatory changes, it is not unreasonable to infer, lead on in some cases to atrophy and cirrhosis.

I have derived much valuable suggestion and help on the subject of the thyroid function in pregnancy from two papers by Oliphant Nicholson,¹⁰ of Edinburgh, on Eclampsia and the Thyroid Gland. He refers to the function of the thyroid in the upkeep of metabolism and mentions Lange's work. Lange examined 133 pregnant women in the last twelve weeks of pregnancy, and found the thyroid gland hypertrophied partly or wholly in about 81.2 per cent. of them. This hypertrophy usually appeared somewhat earlier in multiparae (fifth month) than in primiparae (sixth month). The enlargement disappeared and reappeared with each successive pregnancy. When iodothylin was administered in small doses to a pregnant woman who showed the hypertrophy, the gland diminished to its normal size within a fortnight; when treatment was stopped the gland almost immediately began to enlarge again. Of the 22 cases who did not show enlargement of the gland, 16 had both albuminuria and tube-casts (pregnancy kidney) which in six instances terminated in eclampsia, which was apt to recur in successive pregnancies.

Of the 108 women who had a normal thyroid hypertrophy, only two had albuminuria, and in these there was a history of renal disease previous to pregnancy. Verstroeten and Vanderlinden¹¹ have shown that pregnant cats require for the maintenance of their health larger thyroids than non-pregnant animals. After removal of more than four-fifths of the thyroid in pregnant animals, tetany occurs, which soon passes off under treatment with iodothylin.

In the toxæmia of eclampsia the metabolism of nitrogenous bodies has not been continued up to the stage of urea formation. The process is stopped short at a point where the products are highly poisonous. The "defence organs," for whose competence iodothylin is necessary, fail in their work. The kidneys are equal to the consequent extraordinary strain up to a certain point, when they strike work, and by their insufficiency produce eclampsia.

Nicholson records a series of cases, which he and others have since amplified, of genuine eclampsia and the pre-eclamptic state which were all alleviated in a most striking manner by the exhibition of thyroid extract. He believes that he has explained the phenomena of eclampsia in terms of thyroid inadequacy. One step further leads us to regard the hypertrophy of the thyroid gland as taking place in response to a call for an increased supply of thyroid secretion by the combined metabolism of mother and fetus. In four of my cases, in which the swelling in the neck was first noticed in pregnancy, the women gave distinct history of either eclampsia or genuine pre-eclamptic toxæmic symptoms. In these the thyroid function, possibly already taxed from other causes, was insufficient. In the rest, where pregnancy was normal in its course, the thyroid, although previously enlarged, was equal to all the demand made upon it. It is thus evident that the metabolism consequent upon menstruation and pregnancy is sufficient cause by itself for the development

of thyrocele; for the greater the physiological activity of an organ, and more especially the greater the variability of that activity, the greater is the liability to pathological change, following in the way described above as an ordinary hypertrophy.

(iv) That enlargements of the thyroid gland do occur in chlorosis I believe to be a proved fact. Berry states that it is so. Allbutt¹² quotes Lloyd Jones and others as having observed a fullness of the thyroid in chlorosis, but says that he will refrain from expressing himself until the incidence of thyroid enlargement in healthy women has been ascertained. I have examined the necks of 49 girls who came up to our out-patient department here, complaining of the symptom-complex of chlorosis, more or less complete. Of these, 18 showed enlargement of the thyroid gland; in some it was much more marked than in others.

Allowing for liberal error, the percentage of enlarged thyroids in chlorosis still remains far in excess of the usual incidence of the affection in health. The type of swelling has been exactly similar to the type seen under other conditions, and the size has varied from a marked clumsy bulging to a slight enlargement which was only discernible on careful palpation. In some the enlargement has been a firm one; in others it was flaccid. The degree of chlorosis present has also shown no constancy. I have examined the blood quantitatively of 10 of the cases of chlorosis showing appreciable enlargement of the thyroid. I have found the condition of the blood to vary greatly, both in respect to the number of red blood corpuscles and percentage of haemoglobin.

Another point, too, is that whereas the chlorosis has improved rapidly with iron, the thyroid, apart from the administration of thyroid extract, has remained palpable and large, and has diminished much more slowly. What, then, is its significance?

In chlorosis oxidation is not thorough, waste products are retained in the tissues, and hence excretion is imperfect, constipation being a frequent symptom, and the urine being deficient. The headache is suggestive of an auto-intoxication from this cause. Further evidence of this is borne by the researches of Lloyd Jones.¹³ He has shown that the specific gravity of the blood increases in both sexes until puberty. Thus the specific gravity of the blood of a child aged 2 to 3 years is about 1050, that of a youth of 17 is about 1058, and that of a young woman of this age is 1055.6 approximately. From this age the specific gravity in the male still rises, whereas in the female it falls or remains low until about 25 years of age, when it returns to about 1055 to 1056. He found that the blood serum is not altered in specific gravity; hence the change must be in the corpuscular elements and their haemoglobin contents. But, wherever be the change, it follows that this lowering of the specific gravity of the blood means a corresponding lowering of metabolism. Landois and Stirling prove that whenever the specific gravity of the blood falls the excretion of urea and carbonic acid fall. Reflection on the thyroid function of regulating the katabolic part of metabolism will show that in a condition of this sort the thyroid gland must be taxed to its utmost. It is easy thence to conceive that it will enlarge in those individuals whose thyroid gland in its normal state is only barely able to meet the demands of the healthy organism.

(b) The relationship of thyroid enlargement to endemic causes in this district opens up a wide field for discussion. I can only briefly summarize my conclusions:

1. The only common condition to all cases is the water, which has derived its contents from the rocks through which it has percolated, the town water being tapped from deep artesian accumulations.

2. The table supplied will show that in no case has the water shown much total solid impurity, comparatively speaking.

3. It is also seen that the cases have occurred indiscriminately on the sandstone and millstone grit.

4. If there is an endemic influence it is not contained in the lime and magnesium constituents, many waters being much harder and producing no goitre.

5. Its action is only a slight one, and may serve to merely accentuate the changes in the gland due to causes primarily mentioned.

Details of Water Supply compiled from information received from Mr. G. D. S. Harrison, Engineer to Staffordshire and Potteries Water Company.

The water is analysed every six months, and the following is a typical report from the County Analysts. The table also contains the incidence of cases in the various districts.

Name.	Hatton Supply.	Wall Grange Supply.	Meir Supply.	Stockton Brook Supply.
Quality of the Rock.	Sand-stone.	Sand-stone.	Sand-stone.	Millstone Grit.
Towns Supplied.	Newcastle Stoke, Fenton (part).	Hanley, Etruria.	Longton, Fenton (part).	Cobridge, Burslem, Tunstall.

GRAINS PER GALLON.				
Total solid matter dried at 212° F.	16.8	13.3	16.8	21.0
Free and saline ammonia	0.000	0.0007	0.000	0.000
Albuminoid ammonia...	0.000	0.000	0.000	0.000
Nitric nitrogen ...	0.31	0.27	0.27	0.05
Combined chlorine ..	0.84	0.98	0.84	2.94
Oxygen absorbed in 4 hours at 80° F.	0.000	0.004	0.003	0.0009
Appearance ...	Clear	Clear	Clear	Clear
Colour through 2 ft.* ..	—	—	—	—
Hardness before boiling	10.94°	8.48°	12.94°	10.39°
Hardness after boiling	6.30°	5.90°	5.70°	5.00°
Temporary hardness ..	4.64°	2.58°	7.24°	5.39°
Incidence of cases...	19 cases	6 cases	5 cases	16 cases

* All a pale-bluish tinge.

Eight other cases lived out of the area supplied by the company, and drank either spring or well water.

(c) Heredity is potent in producing the condition in that the thyroid function is transmitted in a weak condition from the last generation, who, before the company's water supply was largely used, were badly affected by goitre, the "Staffordshire neck" being well known. Inherited weakness results in increased liability to morbid processes. The thyroid function being congenitally weak, the gland will be more liable to enlargement when taxed in the way above described. Twenty-three of my 54 cases gave a history of antecedent thyroidal disease in the family, affecting most commonly the mother, sometimes the mother's sisters. In 10 of my cases other members of the patient's family, either sisters or brothers, were affected.

II. The successful medical treatment of thyrocele clinches my argument.

In the first place, I would point out that the condition is only amenable to medical treatment in its earlier stages. Where advanced secondary changes have occurred, such as the development of adenomata or large cysts, the case is undoubtedly one for surgical treatment. These are never materially reduced in size. Where the condition has not advanced beyond the stage of a moderately-distended parenchymatous goitre, and the feel of the gland is homogeneous and soft, good results have been obtained.

Secondly, all lines of successful treatment have supplied the organism with one or other of the elements contained in the thyroid secretion, whether it be by means of iodine applied externally to the neck, or internally as the crude tincture or the iodide of potash, or, again, by means of thyroid extract. The last is the method I wish to emphasize. I have employed it in 40 cases, with the following results:

In 12 cases the thyrocele has completely disappeared; in 13 cases it has been greatly reduced in size; in 15 cases the reduction accomplished has been slight. In most of the latter adenomata or cysts were present, and improvement consisted in a shrinking of the thyroid substance around the adenomata. The average length of treatment was about three months. As a rule, the effect began to manifest itself in about two to three weeks.

The method employed was to begin with a dose of about 5 gr. of the dried extract, and to increase this gradually until signs of a mild thyroidism were obtained—namely,

some quickening of the pulse, and an alteration in its quality, consisting of an increase in volume and a diminution in tension. Idiosyncrasy was found to play a large part in the action of the drug, some patients taking 20 gr. thrice daily with equanimity, whereas others were "thyroidized" by half the dose. The largest dose that could be borne without bad effects was persisted with for about three months, and then gradually decreased. Six patients were treated as in-patients, and these all showed prior to treatment, amongst other signs of hypothyroidism, a deficient excretion of urea. The urea percentage was often increased from about 1.5 per cent. to as much as 3.5 per cent., as estimated by Dupré's apparatus. This treatment was accomplished without any bad effect to the patient beyond some slight transient headache when on large doses, and more occasionally some palpitation, which disappeared on reducing the dose.

Edmunds¹⁴ states that he has come to regard thyroid extract as a specific for sporadic goitre, and adds "If this is so, the enlargement of the thyroid must be an attempt at compensation." I think a more obvious explanation of its action is that, by supplying the organism with the thyroid secretion, it relieves the thyroid of all work and so gives the gland a chance of recovering its equilibrium, and of dealing with the excess of colloid, which, while the patient is under treatment, is no longer secreted in quantity. Or where the thyrocele has not reached the stage of well-developed alveolar distension, and is merely a hypertrophy of normal tissue, a call for this no longer existing, it resolves.

The following conclusions, then, are reached:

1. That a call for increased functional activity is sufficient cause for simple enlargement of the thyroid gland.

2. That such a call is frequently given by the metabolism of the organism in connexion with growth and development, with the performance of the uterine functions in the female, and with the chlorotic conditions of young girls.

3. That the phases of enlargement of the thyroid included under the term "thyrocele" are a response to such an appeal from one or more of the above causes in an individual whose thyroid function is feebly performed.

4. That as undue physiological activity is a potent cause for pathological change, so this simple hypertrophy, when necessitated for prolonged periods, lays the foundation of the pathogenesis of the degenerate cystic and adenomatous bronchocele.

5. That there is often some influence exerted by heredity upon the thyroid function.

6. Conclusions arrived at as regards a possible endemic cause for these cases in this district have been summarized above.

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SIMULATION OF MASTOID DISEASE.

By STEPHEN PAGET, F.R.C.S.,

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WITHIN the last few years I have had under my care, at the West London Hospital, two cases where the signs of acute mastoid inflammation were feigned. The patient, in each case, was a nurse. I am sorry that my notes are too short to be worth printing here, but I have a clear memory of the cases.

One patient, a nurse in a fever hospital, had been subject for some months to a very slight discharge from the left ear, and I had seen her two or three times, and had advised against operation. She had complained each time of pain behind the ear, even of severe pain. She went back to her work at the fever hospital, and was carefully treated and kept under observation. A few weeks later her temperature began to rise every evening. This evening rise, beginning at 100° F., slowly increased, till at

the end of a week her evening temperature was 103° F. She was now admitted to the West London Hospital, with a view to operation; but the Sister, taking the temperature both in the mouth and under the arm, found it normal in the mouth and 104° F. under the arm. After a week or ten days the temperature became steady, the patient ceased to complain of pain and seemed in perfect health, and left the hospital.

The other patient, a nurse in a convent, had a very slight chronic discharge from the left ear, and, like the first patient, had complained greatly of pain behind the ear. It was known of her that she was "hysterical," and that she was in the habit of taking chloral. On her admission to hospital she had the appearance of a case of meningitis or of cerebral abscess. She lay in bed, day after day, in a state of lethargy, her eyes closed, her hands not moving. She seemed hardly to hear what was said to her, and, when she did answer, it was in a faint whispering voice, very slow. From time to time she moaned, complaining bitterly of pain, and flinching at the very lightest touch behind the ear; but mostly she lay like a log and seemed unconscious of all that was going on around her. Day after day she remained in this extraordinary state for nearly a fortnight. At the end of that time she began to have rapid convulsive up-and-down movements of the right hand and forearm, the side opposite to the affected ear. Even though we were sure that her general condition all these days had been that of a "neurotic" patient, yet I did not dare to leave her without an operation, so I opened the mastoid antrum, but found no pus. The operation perhaps improved the state of her mind, but of that I am not sure. Anyhow, in the course of the next few weeks, she slowly became more natural; the jerking of the arm did not return, and she left the hospital in fairly good health. A year later we heard that she had been admitted to another hospital, with the same set of symptoms, unable to walk or stand, hardly able to speak, and wearing spectacles made not of lenses but of plain glass.

I will not take up space here by any comment on these two cases. But they seem to me worthy of note, showing that we must be on guard against the feigning of the symptoms of mastoid disease. Especially we must not take pain by itself as proof that a mastoid operation is immediately necessary.

MEMORANDA: MEDICAL, SURGICAL, OBSTETRICAL.

PULMONARY ABSCESS CAUSED BY A TOOTH.

THE following case is of interest from the fortunate termination:

A. C., a young lady who consulted me, stated that she had been ill for about seven months. She complained of pain in the right side of the chest, with severe cough and profuse expectoration. Her previous health had been very good.

About seven months previously she began to cough. This was accompanied with pain in the right side of the chest, and soon afterwards expectoration of thick phlegm. She had difficulty in breathing. These symptoms increased in severity, and the patient lost a good deal of weight. She consulted several medical men and was treated at the Swansea Hospital as a case of phthisis pulmonalis. Her condition did not improve.

When I saw her, she appeared very ill, and was quite unable to leave her bed, she perspired freely, and was much emaciated. Her temperature continued at 101°. The cough was very troublesome and accompanied with expectoration of fetid pus. The movements on the right side of the chest were very much diminished. Vocal fremitus was diminished on right side of sternum. There was extensive dullness, from the right clavicle to the fourth rib. The apex beat of the heart was displaced downwards and to the left about 1½ in. There was undoubtedly an abscess in the lung.

Three days after I first saw the patient she had a very violent fit of coughing with a discharge of a large quantity of pus from the lungs. On examination of this there was found a second bicuspid tooth which she had had extracted by a dentist about seven months previously. This tooth must, of course, have been drawn into the glottis while she was under gas—she was quite unaware of the