Operation.	Number of Operations.	Average Age.	Average Weight of Stone.			Average No. Days in Hospital.	Mortality.
			Ozs.	Drs.	Gr.		
Suprapubic lithotomy	4	27½	5	5	0	34	2, or 50 per cent.
Perineal lithotomy ...	14	42½	2	5	23	30	4, or 28½ "
Litholapaxy ...	31	52	2	5	2	10½	3, or 9½ "

The average age of the litholapaxy cases was 52 years, ten years greater than that of the perineal lithotomy cases, and double that of the suprapubic cases. The average weight of stone in the suprapubic cases was, however, twice that of the other two varieties of operation; but the period under treatment after operation in the litholapaxy cases was only ten days, as compared with thirty and thirty-four days respectively in the lithotomy cases. Finally, the mortality, which in the suprapubic operation was 50 per cent. and in the perineal 28 per cent., was in the litholapaxy cases reduced to less than 10 per cent.

Now I am aware, of course, that 4 cases of suprapubic operation do not constitute a sufficiently large number from which to draw any safe or trustworthy conclusion. But a glance at the column of results in the first tabular statement will show that in proportion as I abandoned lithotomy in my practice in favour of litholapaxy, and as I gained experience of this latter operation, my results improved; and the fact that my last 16 litholapaxies for calculi of from 2 up to 6½ ounces were one and all successful shows what splendid results we may obtain from Bigelow's operation.

With results such as these before me, I have no hesitation in pronouncing Bigelow's method the safest and best for calculi of all sizes, in patients of all kinds and conditions, provided only that this operation is feasible. When not practicable, I consider that calculi up to about 3 ounces in the adult, and a corresponding weight in the child, are best removed by perineal lithotomy; beyond that, suprapubically. Six and one-eighth ounces is, as I have said, the largest stone that I have removed by Bigelow's method; but still larger calculi have been successfully removed by Keith, Keegan, and Cunningham in India, and by Milton in Cairo. So fully convinced am I of the vast superiority of Bigelow's operation over all others in saving human life and suffering, that I would lay it down as an absolute rule that in no case, whether in the male or in the female, the adult or the child, should a stone, whether small or large, be subjected to a cutting operation till after trial litholapaxy is found to be not feasible.

REMARKS ON PROGNOSIS IN EXOPHTHALMIC GOITRE.

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The prognosis in exophthalmic goitre is a point of considerable importance, for two reasons. In the first place, the patients who suffer from this disease are very nervous and excitable. In many cases the disease has followed some mental shock, and if a very favourable prognosis can be honestly given it will do much to calm the excited mental condition of the patient, and will be of considerable service therapeutically. Then, again, the prognosis in exophthalmic goitre is of importance with reference to the many and varied methods of treatment which have been advocated. Recently operative treatment has found favour especially in Germany. But before one can form a correct estimate of the value of the various surgical operations which have been performed (such as partial removal of the thyroid gland, ligature of the arteries supplying the gland, division of the isthmus, etc.), or indeed of any form of treatment, it is necessary to know the termination of the disease in a fair number of consecutive cases.

I have recently been much impressed by the therapeutic

value of a good prognosis in a private case, in which the symptoms had followed a severe mental shock, and in which there was great mental excitement owing to the development of these symptoms. But do statistics warrant us in giving a very favourable prognosis?

Cases of exophthalmic goitre sometimes terminate fatally. Occasionally, though very rarely, they rapidly terminate fatally. On the other hand, undoubtedly, in some cases, complete recovery occurs. (Good examples have recently been recorded by Professor Pribram in the *Prager med. Wochenschrift*, No. 46, 1895.) I think the experience of most medical men, who sees much of hospital practice, will be that the disease rarely terminates fatally in the hospital. Then again, I think everybody who sees much of pathological work will admit that cases of exophthalmic goitre are very rarely met with in the *post-mortem* room.

Out of forty-five cases of exophthalmic goitre admitted as in-patients at the Manchester Royal Infirmary since 1884, three only terminated fatally whilst under treatment in the hospital. The statistics of other hospitals are somewhat similar. Thus out of fifty patients suffering from the disease who were admitted into the wards of St. Thomas's Hospital, London, between the years 1870 and 1894, only four terminated fatally whilst under treatment.¹ What then becomes of the cases which do not end fatally whilst under observation? The statements in textbooks vary somewhat as to the termination of the disease, and most writers refer to the difficulty of tracing the cases, and the scanty statistics which have been published. Valuable information on this point has been furnished by Dr. Hale White, by Professor Pribram,² and others. Still it appeared to me that an attempt to ascertain the termination of the disease in a larger number of consecutive cases might furnish statistics of considerable interest.

The following are statistics with reference to fifty consecutive cases of exophthalmic goitre, in which I have attempted to ascertain the course of the disease. Forty-five of these had been patients at the Manchester Royal Infirmary, and to the kindness of the medical staff, Dr. Leech, Dr. Dreschfeld, Dr. Steell, Dr. Harris, Dr. Bury, and Dr. Wilkinson, I am indebted for permission to report the course of the disease in these cases. I have recently visited a large number of these patients at their own homes; in the other cases I have obtained reliable information by letter.

In none of the cases was any operative treatment adopted. Most of the patients derived benefit by rest in bed, and various kinds of medical treatment, but none were cured thereby. In the majority of cases the patient only remained in the hospital for a comparatively short time, and very often, on returning home, all treatment was discontinued. The difficulty in tracing these cases has been exceedingly great, but I have succeeded in obtaining definite information with respect to thirty-two out of the fifty cases, and I have good grounds for thinking that the course of the disease, in the cases which could not be traced, did not differ in any marked degree from that in the thirty-two cases traced.

Of these fifty consecutive cases, four died whilst under observation; forty-six left the hospital or passed from direct observation, the condition being either improved, or much the same as when first seen. The following are the results in thirty-two cases at the time this paper was written:

FATAL CASES WHILST UNDER OBSERVATION.

i. Female, aged 39, came under my care, January, 1891. Cardiac symptoms all well marked, palpitation exceedingly troublesome; cardiac enlargement. History of alcoholism. Death in March of the same year from cardiac failure. Duration of disease from time when symptoms first attracted attention, 7 months only.

ii. Female, aged 49; slight goitre for 30 years. This became very large 12 months before death. Palpitation then became very troublesome. All cardinal symptoms present; dilated heart, great palpitation, pulse 200 per minute. Pleuritic effusion; oedema of legs.

iii. Female, aged 22; cardinal symptoms were marked. Hæmorrhage into stomach; duration of illness 3½ years.

iv. Male, aged 44; complicated by dilated heart, mitral incompetence, general anasarca and ascites.

FATAL CASES AFTER LEAVING THE HOSPITAL.

v. Female, aged 44, palpitation and dyspnoea, 2½ years before death. Exophthalmos, thyroid; enlargement appeared 9 months before death. The heart became considerably dilated and a systolic apical murmur

¹ See *St. Thomas's Hospital Reports*.

² *Prager med. Wochenschrift*, No. 46, 1895.

developed. During the last 3 months of life exophthalmos very slight, and thyroid enlargement only moderate.

VI. Female, aged 46. Fatal at the end of 4 years.

RECOVERY.

VII. Female, aged 40 in 1896. I first saw this patient when house physician at the Manchester Royal Infirmary, in 1884. Exophthalmos, thyroid enlargement and palpitation were then all exceedingly well marked. Oedema of the leg. Symptoms noted 2½ years previously. I examined the patient at her own home in April, 1896, that is 14 years after the onset of the disease. There was then no enlargement of the thyroid, no exophthalmos, no increased frequency of the heart beats, the pulse was slow, rather feeble and irregular. She stated that at times she suffered from palpitation. There was no oedema.

VIII. Female. Thyroid enlargement, palpitation, exophthalmos, eyelids remained open during sleep. About four years later these symptoms were all slight. Von Graefe's symptoms was present but not well marked. The patient gradually improved, and 9 years after the onset all the symptoms had disappeared.

IX. Female. Slight case. At the end of 5 years, I found on examination of the patient at her own home, that all the symptoms had disappeared.

X. Male. Slight case. His friends state that the symptoms disappeared. He died of appendicitis and peritonitis 8 years after the onset of the symptoms of exophthalmic goitre. Dr. F. C. Bottomley kindly informed me that no indications of exophthalmic goitre were noticed during the patient's last illness.

XI. Female. Slight case. The exophthalmos soon disappeared. Then the patient suffered from several attacks of rheumatism. Nine years later, on examination, I found the physical signs of mitral stenosis. Exophthalmos, goitre, and palpitation had all disappeared.

RECOVERY ALMOST COMPLETE.

XII. Female, aged 50 (in 1895). Symptoms first appeared in 1878, they were well marked and continued for many years; then they gradually diminished. Seventeen years after the onset of these symptoms she died of double pneumonia (in 1895). Her friends state that some years previous to her death all the symptoms of exophthalmic goitre had entirely disappeared. Dr. Prince Stallard, who saw the patient shortly before death, kindly informs me that there was, however, a little enlargement of one lobe of the thyroid remaining, but there were no other indications of exophthalmic goitre. The symptoms of the disease had therefore almost disappeared.

XIII. Female. Well marked case. Very greatly improved at the end of 7 years. She married a few months ago.

CONSIDERABLE IMPROVEMENT.

XIV. Female. Disease commenced in 1887. She improved greatly under treatment, resumed her occupation as a teacher and was fairly well until 1894, when she became much worse. At the end of 3 months improvement occurred and she again resumed her occupation and has continued fairly well since. Patient was married in 1895. At present, 9½ years after the onset of the disease the symptoms are only slight.

XV. Female. At the end of 7½ years, exophthalmos has disappeared but thyroid enlargement and palpitation still present.

XVI. Female. Symptoms followed very soon after a fright. 12 months later she had rheumatic fever. The symptoms of exophthalmic goitre have partially subsided. Seven years after the onset slight exophthalmos is still present, but the thyroid enlargement has almost disappeared, pulse 52, irregular. The patient is now suffering from parenchymatous nephritis and symptoms of valvular disease of the heart, probably the result of rheumatic fever.

XVII. Male. Palpitation still present, but exophthalmos and thyroid enlargement stated to have disappeared at the end of 6 years.

XVIII. Female. Exophthalmos and goitre much less, but palpitation still present at the end of 2 years.

ONLY SLIGHTLY IMPROVED.

Seven cases (duration in years is given after each case).

19 Female (7 years); 20 Male (6½ years); 21 Female (5 years); 22 Female (2½ years); 23 Female (1½ years); 24 Female (1½ years) 25 Female (1 year).

CONDITION MUCH THE SAME.

Six cases (duration in years is given after each case).

26 Female (9 years); 27 Female (7 years); 28 Female (5½ years); 29 Female (3½ years); 30 Female (2 years); 31 Male (2 years).

Case 32. Female, a well marked case. Seven years later the patient was still alive and in service as a housemaid, but information as to the exact condition could not be obtained.

RESULT IN THIRTY-TWO CASES.

	Cases.
Fatal termination	6
Recovery	5
Recovery almost complete	2
(Duration of life 17 years and 7 years).	
1 Considerable improvement	5
(Durations of disease in years 9½, 7½, 7, 6, 2)	
1 Only slight improvement	7
(Durations of disease in years 7, 6½, 5, 2½, 1½, 1½, 1)	
1 Condition much the same	6
(Durations of disease in years 9, 7, 5½, 3½, 2, 2)	
Patient still alive at the end of 7 years, condition not known	1

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If we eliminate from the above table the cases which have been under observation during the shorter periods, and include only those cases which have terminated fatally, those

1 Symptoms still present.

which have recovered, and those in which the disease has existed for over five years, we have the following results in twenty-four cases: Fatal termination in six cases; recovery complete, or almost complete, in seven; improvement in seven; condition much the same in three; patient alive and following her occupation (exact condition unknown), one case. These conclusions furnish statistics which, I believe, represent fairly well the course of the disease.

THE TREATMENT OF CONSUMPTION BY THE OIL OF CINNAMON.

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GENERAL CONSIDERATIONS.

THE various methods of treating pulmonary consumption adopted by modern physicians appear to have in view the two following objects:

1. By various means to improve the general health, and increase the resisting power of the tissue cells.

2. To kill or lessen the vitality of the invading germs.

The carrying out of the first object is frequently more easily achieved than the second. There is, I think, no doubt about the efficacy of fresh air, exercise, good living, and tonics in the treatment of consumption as a means of improving the general health and giving the individual a better chance in the combat with the disease.

The treatment of the disease by drugs calculated to injure the bacilli is, however, much less satisfactory. There are practically three ways in which germicidal drugs may be administered: 1. By injection into the affected area. 2. By the blood stream. 3. By the respiratory tract.

The first method was tried by Dr. Ransom, then of Manchester, but his experience was not such as to encourage the continuance of this plan. With regard to the second method it would seem impossible that any drug could be put into the blood in a dose sufficiently strong to affect the bacilli without at the same time killing the patient, more especially if these bacilli are out of reach of the blood stream.

The third appears, however, to offer a much better means of getting at the cause of the disease than any other method; but even by this means one can only hope to attack such bacilli as are in the air passages, for it is obviously quite impossible to injure organisms outside the air current, more especially if surrounded by fibrous tissue. In other words, catarrhal phthisis is the only form of consumption one can directly benefit by antigermicidal remedies.

I take it that a drug to be perfect for inhalation should possess the following qualities: 1. It should be strongly antiseptic. 2. It should not be injurious to the tissue cells of the lung or the organism. 3. It should possess a pleasant taste and smell or an absence of both. 4. It must not produce nausea or loss of appetite if used for a considerable time. None of the antigermicidal drugs that have been used in the treatment of phthisis appear to possess all these qualities. Although most have their good points, and are no doubt useful in certain cases, none of them appears to be thoroughly satisfactory.

GERMICIDAL POWER OF THE ESSENTIAL OILS.

My attention was first drawn to the essential oils through reading a paper by M. Chamberland, published in 1887. It appeared to me that if the oil of cinnamon possessed strong antiseptic properties, it was a drug likely to be of service in the treatment of pulmonary tuberculosis if used as an inhalation.

I first used the drug as an inhalation in cases of tuberculous phthisis in 1892. I found the patients liked the smell and taste of the oil; it caused no irritation of the air passages, and did not interfere with the appetite; the progress of the disease was influenced favourably. My interest was further aroused in 1893 by a paper by Dr. Lucas-Championnière.¹ Since then I have regularly prescribed inhalation of the oleum cinnamomi ver. in cases of consumption.

¹ Journal de Médecine et de Chirurgie Pratiques, No. 11.