TREATMENT IN GENERAL PRACTICE

This article is one of a series on the management of some of the major medical disorders met with in general practice

THE TREATMENT OF LUNG ABSCESS

BY

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An abscess of the lung may begin insidiously or develop acutely, and it may be fully formed, with a fluid level, when help is asked. In any case, a preliminary course of medical treatment is indicated, as spontaneous cure is by no means uncommon. The patient should be nursed so far as possible in fresh air, subject to suitable conditions of weather and comfort to both patient and nurses. The importance of postural drainage should be realized. This should be thorough and rational, and to be so a knowledge of the exact site of the abscess and of the bronchus draining the abscess is essential. This can be ascertained by anterior and true lateral skiagrams, supplemented if need be by lipiodol injection. Rigid views of postural drainage, nevertheless, must not be allowed to override humane considerations. It is astonishing, however, how many patients will tolerate the head downward posture for long periods, on a suitable bed, such as that described by Mr. H. P. Nelson,* when the position of the abscess demands it. Steam inhalations of menthol and friars' balsam—a few crystals of the former and a drachm of the latter to a pint of boiling water—are soothing.

Relief of Cough

Something must be done to relieve the cough, which is often paroxysmal, distressing, and exhausting, without suppressing the cough reflex too much or inhibiting the action of the cilia, and without making the expectoration too tenacious to be brought up. This is often a great difficulty. Inhalations of menthol, friars' balsam, pine, etc., are helpful, but sometimes the cough is so intractable that the use of opium in some form is imperative—morphine, 1/6 to 1/4 grain; or heroin, 1/12 to 1/6 grain; or omnopon, 1/6 to 1/3 grain. If it is possible to avoid it it is better, and everything else should be tried. Cocaine sprays, acid. hydrocyan. dil. m iv.-v, in repeated doses (for example, every three hours), watching for drowsiness, are to be advocated; and even thorough anaesthetization of the pharynx with 10 per cent. cocaine may be justifiable. A mixture of codeine bromoform and aconite may give relief—for example, syr. bromoformi co. (B.P.C.), 5 iv or more three or four times a day, or codeine phosph., grain 1/4 to 1 repeated at intervals.

The relief of cough is specially emphasized as the patient may have sleepless nights, and besides wearing himself out with it may also spread the contents of the abscess into other parts of the lung. So important is this matter of the coughing that, although it is anticipating my later remarks, I would say that *if the cough is uncontrollable it is one of the indications for early operation*. Other medicines should be tried—for example, hexamine, gr. x, t.d.s.; creosote, m ii.-xv, t.d.s.; ipecac., m v.-vi, t.d.s.; sp. pin. (B.P.C.), 5 i four-hourly; ol. terebinth. rect. (B.P.) in capsules, m iii.-v, three or four times a day; liq. arsen., m iii.-viii, t.d.s.; or injections of N.A.B., the rationale here being the presence in some cases of an enormous preponderance of spirochaetes and fusiform bacilli.

Various injections have been suggested, among them alcohol, but I cannot help thinking that the enthusiastic statements of its advocates lack the critical restraint that a fuller knowledge of the tendency to spontaneous recovery might have imposed. I believe that lipiodol injections orally, or by nasal catheter or the crico-thyroid route, are of possible assistance towards the rapid spontaneous recovery of the abscess. If these measures fail, then I think a bronchoscopy under avertin and local anaesthesia should be advised, in the hopes that possibly freer drainage may be promoted by relief of the oedema of the bronchus, or some treatment of the granulation tissue, whether it be painting with cocaine, dilatation, or cauterizing. Should this do no good, I should not, I think, be inclined to advise further bronchoscopies. Strong claims have been made for short-wave diathermy, but I have had no experience of this as yet.

Indications for Operation

If the cough is uncontrollable and too distressing, then early operation is indicated. Apart from this, I should prefer to wait three or four weeks if possible, to give nature a chance. If, after this time, there is no improvement, then I should advise operation, and in two stages if necessary—the first under a local anaesthetic and the second under gas and oxygen. This necessity would arise if the pleural layers were not adherent, when a first-stage operation would be necessary to make them so.

The operation should be a complete one, involving a large incision, resection of a considerable portion of (probably) two ribs, complete opening up of the abscess cavity (preferably by the diathermy cutting loop), opening up of all affected bronchi, all bleeding points to be stopped by the diathermy button, adequate drainage to be established, and the abscess not allowed to heal too soon.

In fact, I would rather the cavity and the wound were kept widely open until there was no trace of suppuration left. If the opening from the abscess cavity be allowed to close too soon then all the symptoms may recur. If the wound be allowed to heal prematurely then it may be very difficult to deal with the abscess if any residual suppuration should remain or any relapse occur.

Illustrative Cases

In the last few years I have seen many cases of lung abscess. Of twenty of these I have detailed notes. A consideration of them will serve to illustrate many essential points in the treatment. Of the twenty patients, three died, sixteen completely recovered, and one is still not well and has a discharging sinus.

Fatal Cases.—Of the three fatal cases one died of a cerebral abscess following a flare-up caused by a nurse at a convalescent home syringing out the sinus, supposing it to be a case of empyema. The second patient died because a one-stage operation was performed in spite of a strong request that the two layers of the pleura should be made adherent before the lung was incised: the lung fell away from the chest wall the moment the pleura was opened, a great quantity of pus was at once aspirated into the other lung, the patient went blue on the table, and only survived the operation a few hours. The third patient was a

* British Medical Journal, August 11th, 1934, p. 251.

man aged 34, who was operated on in February, 1931, five months from the onset of definite abscess symptoms. A two-stage operation was performed, a tube put in, and the wound allowed to close round the tube. He had a bad relapse. Bronchoscopic drainage and lavage of the cavity was performed four times, under local anaesthesia, but eventually it had to be reopened and drained. There persisted a discharging sinus. He became worse, and finally tubercle bacilli appeared in the sputum in large numbers, and he steadily declined.

CASES WITH RECOVERY

Of the sixteen patients who completely recovered seven got well without operation, treated on the lines already mentioned.

One was a woman of 50 with diabetes, blood sugar over 0.3, and a huge abscess in the left upper lobe. She was so ill that it was at first thought to be a neoplasm. A lipiodol injection was given, after which she made a rapid and complete recovery, and was seen perfectly well several years afterwards.

The remaining nine of the sixteen completely recovered cases were operated on. In one case a phrenic evulsion only was done; in the others, thoracotomy and drainage—eight cases by a two-stage operation, and one case by a one-stage operation, as the lung was found to be adherent. The time elapsing between the onset of symptoms and operation was respectively fourteen days, one month, six weeks, two months, two and a half months, six months, nine months, nine months, and twelve months. Of the case with a persistent sinus I will give certain details.

She was a doctor's wife, who had definite symptoms, signs, and x-ray appearances of a lung abscess in January, 1930. A lipiodol injection was made in February. Five bronchoscopies were performed in June, but without cure of the condition. In the middle of September a two-stage operation was performed—that is, nine months after the onset of definite symptoms. This led to an enormous improvement, but not to a complete cure, for in November there was still some paroxysmal cough, occasional slight rises of temperature, and one to two drachms of purulent sputum per day. A finger was put into the cavity and sloughs removed. This caused a great improvement, but in January, 1931, the wound was still discharging some offensive pus. By March the patient was definitely better, but the tube has been kept in till this day—partly because the patient has a curious trick of swallowing things the wrong way, which it is thought may have caused the abscess. Through the drainage tube there comes orange juice, tea, chocolate, bread crumbs, and many other foodstuffs. Last year she developed arthritis. A large sinus persists, and the open ends of bronchi are visible.

Of the successful operative cases those patients who were operated on early made the quickest and most uneventful recovery. Operation was imperative, so it was not a case of *post ergo propter hoc*. Two cases of delayed operation may be quoted as they are instructive, and illustrative of special procedures, which may be necessary to complete the cure.

A child, aged 5, had had symptoms for over nine months. Neoplasm was suspected. The whole of the right upper lobe, however, was found to be one huge abscess. He was drained by a two-stage operation, and subsequently a phrenic evulsion was performed. From being moribund he was restored to comparative health. There remained a discharging sinus. Later a complete thoracoplasty was performed and the child made a full recovery.

The second was a lady, aged 52, whose abscess followed tonsillectomy in December, 1929. She was never well since, soon developing abnormal physical signs in the right side, and high fever. Symptoms such as purulent and offensive sputum did not develop until April, 1930. In July lipiodol was given. In October—that is, nine months or more from the start of her abscess—she was operated on in two stages.

She greatly improved, but relapsed. A phrenic evulsion was performed. She relapsed again, and was very ill for many months. She then developed arthritis. She was wasted, febrile, and still bringing up sputum. Finally a course of N.A.B. was given, she made a complete recovery, and is now perfectly well.

Conclusion

In conclusion, I would say that if I had a lung abscess I would wait a month before being operated on, unless the symptoms were intolerable. My own personal prediction would be for open operation and drainage rather than for bronchoscopy, but I fully realize that there are many authorities who hold dissimilar views.

VOLUNTARY PATIENTS IN MENTAL HOSPITALS

NEED FOR TREATMENT UNITS

A number of recommendations for the treatment of voluntary patients under the Mental Treatment Act of 1930 have been drawn up by the National Council for Mental Hygiene. The committees through which the document has passed comprise superintendents of mental hospitals, past and present, assistant medical officers of mental hospitals, psychotherapists of various schools, mental hospital visitors, justices of the peace, and social workers. It is hoped, therefore, that the recommendations may be regarded as a serious contribution from both the professional and the lay points of view.

RECOMMENDATIONS BY NATIONAL COUNCIL

1. The mental hospital can afford treatment facilities for the voluntary patient, provided there is available a special treatment unit, detached from the main hospital buildings.
2. Successful treatment depends upon the construction and the adequate medical staffing of the treatment unit.
3. It is essential that this treatment unit should be so arranged that suitable grading of patients is ensured—in other words, that the disturbed patient should not be in proximity to the patient in need of rest and quiet.
4. Only patients who are accessible to active remedial treatment, psychological or physical, should be permitted to reside in the treatment unit.
5. The medical officer in charge of the treatment should be a senior man or woman fully qualified to carry out modern methods of treatment, both psychological and physical. In order that his energies may not be dissipated he should neither have to supervise the welfare of chronic patients nor be burdened with administrative duties. Moreover, he should be supported in his therapeutic activities by assistants, preferably part-time.
6. It would be inexpedient at present to provide accommodation for the voluntary patients other than at the treatment unit of the mental hospital.
7. The provision of well-constructed, well-staffed treatment units will help to break down the popular prejudice which still exists in relation to mental hospitals.
8. In any discussion of the voluntary patient it should always be kept in mind that included in this category are psychotic patients who, were it not for the Mental Treatment Act, would require to be certified.
9. It is recognized that although in a few mental hospitals these principles are applied, in general they are not adopted throughout the country, and it is considered advisable, therefore, to advocate that propaganda should be developed to achieve their acceptance and practice.
10. The treatment unit within the mental hospital should be regarded as a practical solution of the voluntary patient problem *for the time being*, but should not be considered as necessarily permanent and final.
11. It is suggested that every university town should endeavour to establish a teaching hospital under the control of a part-time director, who should be professor of psychiatry at the university.