SEVERE HAEMOPTYSIS TREATED BY MEANS OF THE ICEBAG.

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THE following case seems to be of interest as an illustration of a method of treatment which has largely gone out of use:

The patient, W. B., labourer, age 28, was admitted to Bellefield Sanatorium on March 12th, 1907. There was a history of a considerable haemorrhage eight years ago, but details were wanting. Since then he seems to have enjoyed good health up to August, 1906, when he had a fresh haemorrhage, which continued for some days; from that time to the present he has been in falling health, suffering from cough and weakness, has been unable to do any work, and has been in poor circumstances in consequence. He has lost about a stone in weight.

On examination he was found, in spite of the old history, to be suffering from phthisis in a comparatively early stage. The cough and expectoration were slight, temperature normal, pulse 70. On the right side there was some flattening below the clavicle, with limitation of movement; slight dullness extended to the level of the third rib in front and correspondingly behind; vocal resonance was slightly increased over this area, the breath sounds were bronchial, and a few deep-seated crepitations were heard about the level of the third rib in the mammary line. The base was clear. The left lung was practically normal with the exception of slight dullness at the base, with faint breathing, probably indicative of former pleurisy. The heart sounds were normal, except for accentuation of the second sound in the pulmonary area; the arterial walls were slightly thickened, and the pulse tension was somewhat increased. The urine was normal.

He was kept in bed, and given a full diet, including a liberal allowance of meat and four pints of milk a day. On March 16th (four days after admission) the sputum was increased in quantity and tinged with blood, and the same was observable on the following day. On March 19th definite haemorrhage set in. This continued at fairly regular intervals of a few hours for a period of nine days, the quantity of blood lost at a single haemorrhage varying from 1½ to 15 oz., the total amount being almost 8 pints. The daily quantities were as follows:

March 18th	...	...	...	2 oz.
" 19th	...	...	...	20 "
" 20th	...	...	...	31 "
" 21st	...	...	...	24 "
" 22nd	...	...	...	18½ "
" 23rd	...	...	...	7 "
" 24th	...	...	...	16 "
" 25th	...	...	...	11 "
" 26th	...	...	...	20 "
Total	...	...	...	153½ oz.

The temperature fluctuated from 99° to 101° F. The patient throughout was remarkably phlegmatic. The only alteration in the physical signs was an increase in the number of crepitations over the area already noted, and the development of a crepitant area at a corresponding point behind. No evidence of a definite vomica was at any time obtainable.

The treatment included absolute rest with the shoulders slightly raised, a diet of milk and eggs, and mild saline aperients. Hypodermic injections of morphine (½ grain) were given at first, but were discontinued as ineffectual. Amyl nitrite was administered in 3-minim capsules at frequent intervals, but appeared to have no effect. On the evening of March 26th an icebag was applied over the front of the right upper lobe, and kept continuously in position night and day, the ice being frequently changed. Not a single drop of blood was expectorated from the time it was first applied. All drugs were stopped and the bag kept in place for six days. At the end of that period the chest was examined, and no crepitations could be discovered. The patient is now (twelve weeks after the cessation of the attack) rapidly improving in health, has gained 15 lb. in weight, and has no cough or expectoration.

The treatment of haemoptysis by means of the icebag is of course far from being a novelty, but of recent years it has largely been discontinued. I have frequently made use of the outward application of ice in such cases, but without very convincing results. It is seldom that the bleeding point can be localized with sufficient accuracy for the ice to be applied directly over the seat of the haemorrhage, and thus to produce reflex contraction of the pulmonary vessels in the affected lobule. If applied in the wrong place, it probably does harm by raising the blood pressure in the region of the haemorrhage. In the case under consideration, there is little doubt that the blood was coming from a minute cavity situated deeply in the lower portion of the right upper lobe, since there was no sign of breaking down of lung tissue in any other situation. In such cases the local application of the icebag would seem to be a method of treatment worthy of more general adoption.

GOITRE OPERATIONS UNDER LOCAL ANAESTHESIA.

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I do not advocate local anaesthesia as a routine practice in goitre operations. Most patients who undergo operations for enlarged thyroid glands take general anaesthetics satisfactorily (though it is not always possible to say beforehand which patients will not do so), so there is no need to submit the majority of these patients to the discomfort and anxiety of an operation under local anaesthesia. But for those patients whose condition makes general anaesthesia risky, or for those surgeons who shrink from giving general anaesthetics to patients of this class, I am sure that much good can be done with local anaesthesia.

During the last two years I have had opportunities of using a local anaesthetic for a number of severe goitre operations, and the results have been satisfactory. I do not claim any originality in this method. I have merely tried to follow the advice given by Professor Barker in the BRITISH MEDICAL JOURNAL of December 24th, 1904. The needles I have used have been his and the solution that which he recommends—sodium chloride 12 grains, beta eucaine 3 grains, water 3½ oz.; this is boiled, and then 10 minims of commercial adrenalin solution are added. The solution is ready for injection as soon as cool enough. The injection is made in two parts, superficial and deep. The superficial injection is made about the middle of the line of the proposed operation wound with a long, sharp needle; by passing the needle through the subcutaneous tissue and injecting at different points, the whole site of the incision can be dealt with through a single puncture. It is well to inject high up and to the outer side of the incision line, so that the nerves may be dulled on the proximal side of the wound. Half of the 3½ oz. of fluid are injected superficially. For the success of the deep injection I think it important to introduce the fluid behind the transverse layer of the cervical fascia, so that it may reach the nerves which compose the cervical plexus. To this end I have been accustomed to make a deep stab puncture with a sharp tenotomy knife—if possible, through skin already anaesthetized, behind the posterior border of the sternomastoid muscle at the junction of its upper with the second fourth. The puncture is made here to be above the point at which the spinal accessory nerve emerges from the muscle. One of Professor Barker's flexible blunt-pointed steel needles is then passed along the track of the tenotome deeply into the neck, and the remaining half of the fluid injected here. This is done with the special syringe made to fit these thin flexible needles. If need be, the process may be carried out on both sides of the neck at once, 3½ oz. of the fluid being injected on each side.

The injection, apart from the punctures, does not seem painful, though some patients complain of fullness in the throat during the deep injections. All this injecting can be done with the patient in bed, and after a brief delay she may be moved to the operating room, where the operation should begin not sooner than half an hour from the commencement of the injection. The anaesthesia will last for at least an hour after the commencement of the operation.

The oedema produced in the tissues is often considerable, but is seldom troublesome to the surgeon, for the bloodlessness of the tissues due to the adrenalin compensates for the inconvenience so caused. The operations done have been excisions of half the thyroid gland or ligature of both superior thyroid arteries. The arteries were found without difficulty.

During the operation the patient's face, unless she prefer not, should be covered with a piece of lint, so as to hide the operator from view. She may drink tea, brandy and water, or other fluid during the operation, and this may divert her mind from what is going on. The moral control of these patients has been remarkable; in no instance of a goitre operation have I seen trouble given by the patient.

The results of the anaesthesia have been surprisingly good. The patients experience little inconvenience, except