actual pressure of the fluid, till the lung is ultimately flattened around its root against the mediastinum. When this condition exists the pus would not be likely to gain access to a bronchus. If the abscess occurred on the left side it might burst into the pericardium.

My son, who was a medical student, returned from Dublin for his Christmas holidays. He had always been a viry, healthy boy and was never sick, taking great interest in football and all school games. On December 23rd he had a rigor and his temperature went up to 104°. From this date until January 18th his chart resembled a case of typhoid fever in the third week. He had moist râles in the chest, with a little cough and expectoration. On January 9th the temperature rose suddenly to 105°. He was delirious all night and had great perspiration, with pain in the right lung and increase of expectoration. This, I think, was the start of the abscess. The pain gradually increased, with incessant cough and perspiration so copious that blankets had to be changed frequently.

Dr. Calwell saw him on January 10th, and we agreed to have a vaccine prepared. He received the first injection on January 12th and the second and third on January 15th and 19th without any beneficial result, except that the sputum greatly diminished.

Dr. Calwell saw him again on February 6th, when we explored the chest front and back on the right side, but only got about an ounce of healthy pleuritic fluid at the back. The physical signs were slight impairment of resonance, with imperfect entry of air, which varied from day to day; the way in which the signs skipped from the upper to the lower and from the lower to the upper lobe was remarkable. This, I believe, was due to the contents of the abscess pressing upwards or downwards as the position was changed. Dullness was, however, found behind the scapula, and from this to the axilla, where it became very noticeable.

This was his condition until February 11th, when he experienced a sudden choking and suffocating sensation, and coughed up about 4 oz. of fetid pus, which was almost a pure culture of streptococci. The pain was greatly relieved and he could lie on his right side, which up to this was impossible. The cough and expectoration from this on was almost incessant, and his mouth and throat got into a septic condition, covered with ulcers and very fetid. As he was losing ground rapidly, we decided that his only chance was to have the abscess drained. On February 19th I removed him to a nursing home in Belfast, and, with the assistance of Drs. Calwell, Fielding, and myself, Mr. R. Campbell explored the lung and got pus in the anterior axillary line at the lower border of the lung. A piece of rib was removed and a large drainage tube inserted. When the intercostal space was opened, he immediately coughed out a large quantity of pus and the air was also driven out forcibly through the wound.

The cough and expectoration, which had been almost incessant, now almost ceased, and he experienced great relief, but the cardiac area of dullness was increased, and it now became more evident that there was fluid in the pericardium. This increased rapidly; the pulse became very rapid and weak, and on February 24th it reached 140.

There was evidence of purulent absorption, and Mr. Campbell suggested that he should be given 10 grains of helmitol every four hours; this was continued for about a week and caused a fall in temperature from 103° to 99.5°. Previous to this pericardial trouble he was able to take from five to six pints of Jersey milk in the twenty-four hours; now he could only take a small quantity (about 2 oz.), as it brought on a feeling of distress and suffocation. His condition appeared to be all but hopeless, and he wished to be removed home. This was done on March 12th, and he arrived much exhausted. His heart gradually improved, and at the end of April the pulse had fallen to 98 and was fairly strong.

From April 29th till May 15th he expectorated a large quantity of fetid pus, and subsequently his temperature became normal and remained so. He went on improving steadily; the pulse had fallen to 84. The wound still discharged a little, and Dr. Calwell thought the fetid expectoration on April 29th might have been another pouch which had burst into a large bronchus. I thought it might have been from the pericardium, as the improvement in the pulse was remarkable from April 29th, when the fetid expectoration began, and the heart returned to its normal position and size. He was greatly emaciated, but began to take milk again in good quantities, and from this on improved steadily. After the operation he had a severe attack of neuritis in the right arm, which became more wasted than the left. I think I have never seen anybody so emaciated recover.

The chief points of interest in the case are the peculiar onset, the fact that although the abscess had discharged it continued to make its way to the chest wall, the purulent effusion into the pericardium, and the complication of neuritis. I was greatly perplexed by the course and prolonged duration of the disease; Broadbent said some of his cases took over a year, others six months.

Although the abscess was discharging the patient could not empty the sac completely enough to allow it to contract up so that a sinus formed to the ribs.

Mr. Campbell said that when he made the opening he felt that the pleura was adherent all round the opening,

and that the pleural cavity was cut off from any discharge into it.

The pericardial effusion and neuritis were probably the result of absorption and contamination of the blood.

A noteworthy feature was the entire absence of blood from the sputum. The fact of the abscess not forming in the lung substance but in the fissure would account for this.

A remarkable thing was the way the patient could empty the abscess once every day, and I was impressed with its importance. When we gave him an anaesthetic the emptying was brought about by lying on the side of the bed on his chest with his head dependent, when suddenly from 4 to 5 oz. of pus would be expelled through mouth and nose.

VERONAL POISONING: RECOVERY AFTER 100 GRAINS.

By H. R. SOUPER, M.A., M.B., CH.B. ABERD.,

DUMFRIES.

THE publication in the JOURNAL of April 18th of cases of veronal poisoning has led me to believe that the following account of a case may be of interest.

A cook, aged 40, in a house near Dumfries, had been attending the dentist for severe toothache, and had announced her intention of "taking something to dull the pain." On the evening in question she was seen going to bed, unsteady in gait and muttering to herself, with a small bottle full of white tablets. It was supposed that she was under the influence of alcohol. She was afterwards seen in bed that night fully dressed. Next morning she was found snoring in bed, and could not be roused. On account of the wish of the servants to hide her supposed alcoholic condition, her mistress was not informed till after 10 a.m. On going up to see the patient, she found on the washstand an almost empty bottle of 5-grain veronal tablets.

I arrived at 11 a.m., and examined the patient. She was lying undressed in bed, deeply unconscious, and could not be roused by the most vigorous physical stimulation. The corneal and conjunctival reflexes were absent; the pupils, equal and medium, reacted to light. Plantar reflexes and knee-jerks were absent, and all the limbs were flaccid. The breathing was stertorous and slow (16); the pulse rather feeble but regular (66). There was no rise of temperature, and no evidence of incontinence of urine or faeces, or of vomiting.

On the washstand I found a tumbler containing a little water and a few grains of the veronal, which had evidently been crushed up with a hat-pin standing in the tumbler, and drunk in water. It was afterwards learnt from the chemist who had supplied the veronal that there had been twenty-five tablets in the bottle; four yet remained, and the fragments in the tumbler would not, I think, have amounted to 20 grains (though they were not weighed); so that the patient had taken a dose of over 100 grains, presumably after waking from her first sleep and undressing herself.

A hypodermic injection of $\frac{3}{16}$ grain of strychnine sulphate was immediately given, followed by one of $\frac{1}{16}$ grain of apomorphine hydrochloride, which, however, failed to produce emesis. I therefore passed the stomach tube and washed out the stomach with a weak solution of potassium permanganate; only a little mucus returned with the solution. Before the tube was withdrawn a breakfastcupful of strong coffee was introduced. The patient's condition, however, remained unchanged, and arrangements were made to admit her to the Dumfries and Galloway Royal Infirmary. The dose of strychnine was repeated one hour after the first. The patient was conveyed to hospital in a large motor car, then temporarily in use as an ambulance wagon, but an exceedingly rough journey of over four miles failed to arouse her in the slightest degree. After arrival at the hospital, about 1.30 p.m., vigorous flagellation with a wet towel produced slow movements and moans, but no other response. As her pulse by that time was of good condition, treatment in hospital practically consisted in allowing her to "sleep off" the effects of the dose.

That evening she became semiconscious; next day she was still very drowsy but partially conscious, and during the next three days gradually came round. At the end of a week she was discharged. There was not at any time any appearance of a pemphigoid or erythematous condition of the skin. She did not require catheterization.

I afterwards learned that she went home for a fortnight's holiday, and then returned to her situation.

The interesting features of this case are, I think, the ease with which the drug was procured, and the uneventful recovery after such a large dose.

I am indebted to Dr. Clarke, Senior Physician to the Dumfries and Galloway Royal Infirmary, under whose care the patient was, for permission to follow up her progress in hospital.