

to observe. First, there is on the twenty-fifth attempted cure by local exudation which failed. This is followed by attempted cure by fever, which also failed. This, again, is followed by cure by pus which took about three weeks to take effect. We see, therefore, the three types of defence, in the order named, occurring in this sequence in one person and as a result of one infection. This, I think, demonstrates that I can take a cold badly, and that I am capable of at least attempting cure by all three available methods—i.e., I think I have proved a good subject for purposes of demonstration.

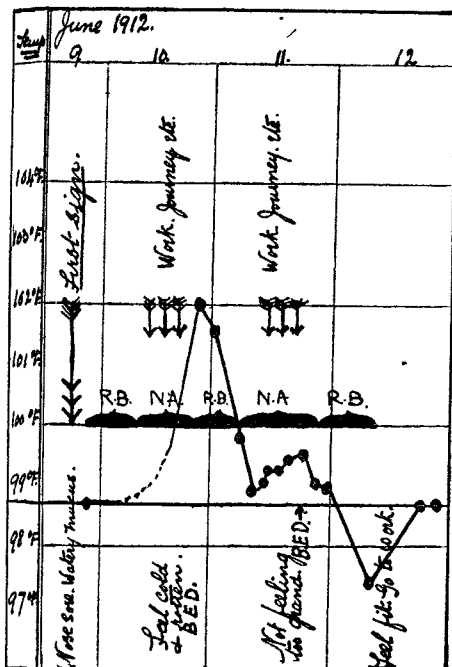
CASE 2 (Chart 2).—This case represents the cutting down of the cold so as to omit the pus stage, a result obtained by deliberate intent. On Nov. 1st, deciding that a cold was developing, I attempted to cure by local reaction by increasing this by dumb-bell exercise. The exercise lasted 15 minutes, increase of general circulation probably 25 minutes. I know now that this is not long enough as a rule. This did not effect cure; I had to go on next day to the fever reaction followed by one day in bed and so to cure. There is one point to notice which, in conjunction with others, is an extremely important observation. On the 3rd the fall of

out both pus and fever. The infection was in the nose only. On rising on the sixth the nasal discomfort showed that infection had got a firm hold; watery mucus during the day confirmed it. Accordingly at 5 P.M., in frosty weather, I took a walk of about four and a half miles. During the first part of the walk the discharge was considerably increased, but later it ceased almost entirely. The temperature, after half an hour rest at home, registered 99° F. I believe the cold was in reality cured by this one walk only. But, being particularly anxious to have a good chart of cure by local reaction only, I took a second walk on the second day in order to make assurance doubly sure. During this there was a slight increase of mucus, but I cannot be sure how much of this was due to the frosty air alone, or if this second effort really put the finishing touch to the cure. At any rate, there was no further trouble of any sort, nor has there been since.

Summary.

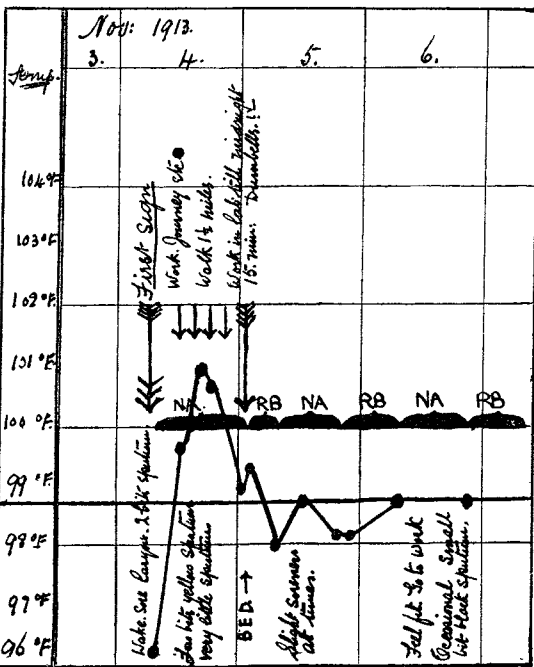
The natural defence against a cold is as follows: on the first day, local exudation; on the second day, either local exudation, if the lesion is still small, or

FIG. 4.



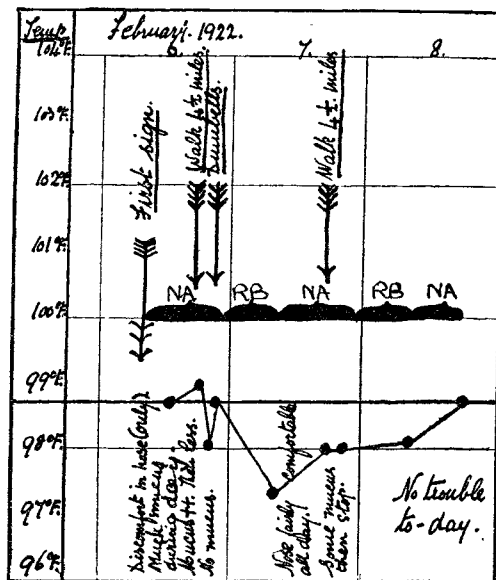
CASE 6.—June, 1912. Aged 35.

FIG. 5.



CASE 9.—November, 1913. Aged 36.

FIG. 6.



CASE 17.—February, 1922. Aged 44.

temperature is broken by such a slight happening as sitting up in a chair for three hours. This emphasises the necessity of complete inactivity of body and mind after high fever—a necessity further emphasised in the following case.

CASE 5 (Chart 3).—Here the fever reaction was brought on the first day by heavy digging in clay soil. I retired to bed when the temperature reached 102° F.; it rose a bit higher and then fell to about a similar point in the curve to which I have just drawn attention in the previous chart. At this point I took a dose of effervescent salts. The mere act of vigorous defæcation caused a rise of temperature of about half a degree.

This same point is more forcibly emphasised in the following case:—

CASE 6 (Chart 4).—Here, what in the two previous cases (2 and 5) is an unimportant blemish on the temperature curve, now becomes a definite prolonging of the illness. A return to work on the day following a temperature of 102° F. caused gradual rise totalling half a degree during the day's work, accompanied by the sensation of not being so well, which is a return of the malaise in slight degree.

CASE 9 (Chart 5).—This case is interesting from a different point of view. It represents a laryngitis only—i.e., a small lesion. The resulting rise of temperature is less, malaise was slight, and ceased about the highest point of the curve, although this occurred during the day's work, about 4 P.M. Though I was working for a special purpose till midnight, the temperature fell steadily, and dumb-bells at 1 A.M. only caused a rise of half a degree, and work next day did not cause any rise above normal. This shows that after a low fever abnormal rest is not essential. Cases 2, 5, and 6 show that rest is essential after higher fever.

CASE 17 (Chart 6).—We have now seen how a cold may be cured by exudation, fever, and pus acting in series. Secondly, how a cold may be cured by exudation and fever, cutting out the pus reaction. In this case we have a demonstration of how a cold may be cured by local exudation only, cutting

by fever if the lesion is larger. Cure may be effected by these methods in 48 to 72 hours from infection, by taking reasonable outdoor exercise for one or two hours on the first or second day as the case may be. If fever supervenes, with sufficiently marked malaise to indicate it, rest for one day in bed is essential. If cure is not effected by one of these reactions, pus formation will occur, and the cure will have to take its own time.

THE USE OF COLLOIDAL GOLD IN THE TREATMENT OF NEURASTHENIA, ALCOHOLISM AND THE MORPHIA HABIT.

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DURING the last 25 years observers have been experimenting with gold salts in the treatment of neurasthenia and alcoholism and good results have been reported. Nevertheless, the use of gold has never become general, although it is vaguely recognised as a treatment and even cure for alcoholism. The bromide has been the salt generally used in epilepsy, alcoholic neurasthenia, and migraine, while the double gold and sodium salt has been given for alcoholism. Colloidal preparations are supposed to be more potent and certain in their action than the ordinary salts of metals, and for some time now I have used colloidal gold (Martindale's sterules) in the treatment of alcoholism and the morphia habit with encouraging results. I have given the drug four

times a day hypodermically, combined with various bitter tonics every two hours by the mouth. I append particulars of three cases of different type.

Drug Addiction.

CASE 1.—A doctor, 43 years old, was gassed early in the war, then developed asthma, and began to take morphia to relieve it. He had always been a fairly heavy and regular drinker, without obviously drinking to excess. When he came under treatment he was taking 8 to 10 gr. of morphia a day, and was drinking at least three-quarters of a bottle of whisky a day. He suffered greatly from insomnia and his appetite was poor; while his chest was wheezy and was giving him a good deal of trouble. His pulse was rapid and feeble and he had done no work for some months. I began treating him; at the end of the fourth day he had given up all alcohol, and by the end of ten days was only getting 1 gr. of morphia per day. Then, unfortunately, the treatment had to be stopped for three days owing to outside circumstances, but was then resumed; on the eighteenth day he was off morphia completely. Since then he has gradually picked up health and strength and is now in very fair health. His heart is still a little weak, and his pulse about 80, but his cardiac muscle is regaining its tone. He never had less than four hours sleep any night during treatment; he got up every day and took his food fairly well. Comparing his case with others treated on similar lines but without the gold injections, I consider that he suffered less restlessness, slept better, and had his general health better maintained than these other cases.

Alcoholism.

CASE 2.—A naval commander, aged 35 years, who had had much nervous strain during the war and was invalided with a pension as a neurasthenic. He had drunk a good deal for six or seven years, but to excess without intermission for the last two and a half years. He had had various treatments, all unsuccessful, and had probably not been teetotal for three days in the last three years. When he came under treatment he was unable to eat unless he had a bottle of whisky; he slept very badly, and was very nervous and shaky, being within measurable distance of delirium tremens.

He had 30 gr. of chloralamide the first two nights, and after that he slept well; he said he was always a good sleeper when in good health. By the end of the fifth day of treatment he had given up all alcohol; by the tenth day he had lost all desire for it, and at the end of his month's treatment he was a new man, eating and sleeping as he says he has not eaten or slept for six years. He has lost all muscular tremor and has recovered his "nerve" and self-respect; signs of dissipation, which were very evident when he came under treatment, have almost entirely disappeared. He has had no desire at all for alcohol, has not had a drink for over 11 weeks, has safely gone through the Christmas festive season, and appears to be cured.

Neurasthenia with Alcoholism.

CASE 3.—This was a complicated case; the patient, a manufacturer's manager, aged 30, was a highly-strung neurotic man who had long been overworked, having made his way from 5s. a week to £3000 a year in 15 years. He came to me with a history of having had "brain fever" and nervous breakdown, associated with insomnia and hallucinations. He also admitted a certain amount of alcoholism, for which he had had treatment in two well-known institutions. Later I found that he had been a very moderate drinker until two years ago, but that during those two years he had drunk to great excess, the brain fever being in reality delirium tremens. Also, that he had been treated by morphia and hyoscine injections for which he constantly craved.

When he came under treatment he slept very badly, only two or three hours a night, and his appetite was small and capricious. He was exceedingly nervous and apprehensive about himself, having a new pain or symptom every time I saw him. His heart was dilated and irritable, his pulse was rarely under 110, irregular and thready. His urine contained a little albumin and he suffered from fits of acute depression and talked of suicide. He refused to have any nurse except his wife, and was a most difficult patient as he would not follow instructions. By the end of a week I had succeeded in getting him off alcohol during the day, but a few days later I found that he bullied his wife into supplying him with a small quantity of whisky at night. I persuaded him to have a female nurse and to let his wife go away, and he was then really teetotal for five days. His wife then returned, and he then asserted that he was cured. He said he would not give up one or two drinks a day, as they did him no harm and had nothing to do with his illness, and as he refused to obey the nurse any longer I gave up the treatment of his case.

While under treatment he was given from 30 to 15 gr. of trional every night for the first six days, and after that he received a few tablets of bicarbonate of soda, which he thought was a hypnotic, as he said he could not sleep without

something of the sort. After the first 14 days he got no hypnotic, knew he got none, and yet slept from six to eight hours nightly, while his appetite became good—in fact, large. The albumin disappeared from his urine, also the large quantities of phosphates formerly present. He lost much of his mental depression, took to motoring and golf again, and showed more interest in social life generally. His wife considered him better than he had been for many months. Although this patient improved, he cannot be considered to be cured; I regard him as certain, sooner or later, to drift back to excess again.

Comparing these cases with others treated similarly, but without the gold injections, I think that, generally speaking, they came round more quickly and with less suffering, that natural sleep and appetite returned sooner, and that nervous symptoms disappeared sooner. As far as can be seen there have been no ill-effects from its use.

Clinical Notes :

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF

FRACTURE OF THE ATLAS.

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FRACTURE of the atlas is a rare injury, especially interesting in those cases where the lesion has not resulted in the death of the patient. Most of the recorded cases have been due to indirect violence, such as a fall on the vertex, but during the war large numbers must have occurred as the result of the direct violence of projectiles. Very few cases due to gunshot wounds have, however, been reported; in the War Office collection of spinal injuries there is not a single specimen showing fracture of the atlas, and only one of injury to the axis. This is certainly due to the fact that fractures of the upper cervical region, brought about by projectiles were almost always associated with damage to the spinal cord, causing instant death, and therefore did not come under the notice of the surgeon. Jefferson has collected records of 46 cases of atlas fracture, 21 of isolated atlas injury, and 24 where the atlas has been fractured along with one or more of the other cervical vertebrae. Records of these 46 cases reveal the interesting fact that fracture of the atlas due to indirect violence is by no means either immediately or eventually fatal. Of the 21 isolated atlas fractures only 2 were killed outright, and only 7 died as the direct result of the injury. Of the 25 cases of atlas fracture combined with fracture of other cervical vertebrae, only 2 were instantly fatal and only 11 died as the direct result of the lesion. The line of fracture is usually through the posterior arch on one or both sides, and occurs through a "spreading" of the atlas ring from transmitted violence from the vertex via the occipital processes. The posterior arch, being the weakest part, gives way first. The following is a brief account of a case which has recently come under my observation.

J. S., aged 24, was wounded on Sept. 30th, 1917. A shell exploded a few feet away, blowing him up in the air and wounding him in the neck. He fell on his head on fairly hard ground. He was left for dead where he fell for four hours and was then picked up and taken to a C.C.S. There was a wound on the left side of the neck at the anterior margin of the sterno-mastoid on a level with the angle of the jaw. Fluids drunk came out of this wound, showing that the oesophagus was perforated, and a fistula persisted for three months. Both legs and the left arm were paralysed for some weeks, and the left arm still shows some paresis.

Present Condition.—All movements of the neck markedly restricted; the head only moves very slightly on the atlas.

X Ray Examination.—Shows a fracture of the upper three cervical vertebrae, which are now more or less ankylosed. The atlas has been fractured through the posterior arch on the left side. The points of interest are: Serious injury of the atlas, axis, and third cervical vertebra, plus a septic