

picion; and the same is true of accelerated respiration without the physical signs of a pulmonary affection. A rapid pulse is an almost constant concomitant of these attacks. Dr. Ringer observed a frequency of 186; but in those coming under my own observation, or recorded by others, it has not exceeded 140.

The possibility of this termination, however, must teach us to watch the thermometer very closely in all cases of acute rheumatism; and this duty becomes the more imperative since it is now shown that we have not merely to study a pathological fatal termination, but that the alternative of the death or possible recovery of the patient may depend on the care of the medical attendant in this respect. It is not merely the apparently severe cases at the outset that are liable to this termination. Out of 15 cases where the data have been accurately recorded by others or by myself, in 4 the temperature, prior to the extreme rise taking place, did not exceed 104°, in 2 it was below 103°, and in 2 below 102°. In 3 only had it exceeded 105°. In one case, indeed, of Dr. Ringer's, the patient, who had recovered from rheumatic fever, was about to leave the hospital next day, and died within two hours with a temperature of 110°, after being apparently in fair health. It is known that pericarditis, as such, has little influence in determining this condition; and in 7 cases, including one of my own, the heart has been found almost unaffected. Indeed, many of these cases are singularly free from anatomical changes in the viscera. The entire freedom from changes in the brain or its membranes, in all the post-mortem examinations made of these cases, entirely disposes of the theory of metastasis; and though they have been termed instances of "cerebral rheumatism," the name thus given scarcely defines their real nature. In one case only were ecchymoses found in the meninges; but this appearance is common in the other viscera.

I think it desirable, also, to point out that no therapeutic measure, with the exception of the employment of cold, has hitherto proved to be of the slightest effect in checking the rise of temperature. One of Dr. Ringer's cases was bled to twelve ounces, one of mine to more than twenty ounces, without effect. In fact, for the future, bleeding must be regarded as entirely inadmissible. It is known to be so in the analogous condition of sunstroke,* or, more properly termed, "heatstroke," which is now shown to be of an analogous nature, and to be attended with hyperpyrexia, and where the most successful treatment is the cold affusion.† In Dr. Meding's case the rise occurred while the patient was taking full doses of digitalis; in one of mine, while the tincture of veratrum viride was being given in doses of five minims four times daily. (This patient had taken ten minims before, but it was omitted for twenty-four hours owing to a reduction of the frequency of the pulse to 54, associated with diarrhoea and with great depression, but with scarcely any perceptible lowering of the temperature. He had again resumed it for forty-eight hours before the final rise.) Blisters to the nape of the neck, cold to the head, sinapisms to the legs, free purgation, were all tried by Mr. Anderson without success, though his treatment was complicated by an attempt to restore perspiration by external warmth. Quinine, in the excessive doses in which I gave it (120 grains in six hours), equally failed in the first case, and also in the second, where half a drachm was given. Opium had been given in a hypodermic injection of one-third of a grain of morphia to my last fatal case on the night of his death; and full doses in another case which has come under my observation. Calomel and opium, given during forty-eight hours to the same patient three days before, had also failed to produce any impression on the pyrexia. I gave the quinine in these two instances entirely experimentally, being influenced by my observations of its apparently favourable effects in some cases of pyrexia‡ and in one of rheumatic fever.

The fact remains, therefore, that at present the only agent on which reliance can, under the circumstances, be placed, is the external application of cold; and the results of my experience may not be without their value to others. In the first place, it is very distinct from the reports that

the surest, most speedy, and effectual method in which it can be applied is by immersion in the bath, while the temperature is observed in the rectum. The patients were simply lifted on a sheet into and out of the bath. After their removal from it they were wrapped in blankets. It is more comfortable to the patients to be immersed in tepid water subsequently cooled than in cold water. With this precaution the bath is to them the pleasantest of these methods of treatment. Allen C— repeatedly asked for it while being packed in the wet sheets wrung out of iced water. On several occasions in Allen C—'s case a rise of temperature was observed to follow immediately after his immersion, and also in the second bath given to Mrs. B—, where a rise of half a degree took place in the first five minutes, but was followed by an immediate fall. I felt doubtful whether in Allen C—'s case this effect could be attributed to a natural tendency to rise already existing; but I am inclined to think that it was probably due directly to the bath, since it took place with a rapidity out of proportion to the previous rise, and lasted for some time. It may, indeed, be probably regarded as an exaggeration of the natural tendency produced by the first application of cold to the body, which has now been shown to be almost immediately followed by this phenomenon; and it has been observed by Liebermeister in other forms of pyrexia.* The amount of the rise and its duration was longer in the later baths, when the patient was weaker, than in the earlier ones. Thus in the first bath it only occurred during the first five minutes, and amounted to only three-tenths of a degree; but on the third, fourth, and sixth days, dating from the commencement of the treatment, the rise lasted during twenty-three, twenty-two, and twenty minutes, and amounted on these occasions respectively to seven-tenths, eight-tenths, and six-tenths of a degree. Even with this effect the amount of the rise cannot be regarded as a serious one, and it was speedily followed by a reduction of temperature. It is, however, to be observed that this rise did not appear so markedly to follow the first applications of the ice-bag or of the wet sheet, though some indications of it were occasionally observed.

(To be concluded.)

CASE OF AORTIC ANEURISM,

Treated in Melville Hospital, Chatham,

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(Communicated by THE DIRECTOR-GENERAL OF THE MEDICAL DEPARTMENT OF THE NAVY.)

D. A—, aged forty, a private in the Royal Marines, employed as a shoemaker, of sallow complexion, furrowed forehead, and iron-grey grizzly hair, beard, and moustache, was admitted on the 31st of December, 1871, with the following history:—For three years subject to winter cough, palpitation, and gnawing pain in the lower third of sternal region. From the 21st of January to the 10th of March, 1870, under treatment in hospital for pericarditis, with consequent effusion, which subsided, and he then returned to duty. Subsequently dyspnoea slowly increased. About the middle of November a swelling appeared to the left of the sternum, and eight or nine days afterwards one on the right.

On admission there were two pulsating tumours of the size of half oranges, projecting two inches and a half from the chest, and connected by a ridge which rose to within three-quarters of an inch of the apices, which were just below a line drawn between the nipples, their bases lying on either border of the sternum, and combined having a circumference of fifteen inches. A bruit was detected on his first examination, but never afterwards. The radials and carotids were synchronous, and the pupils contracted equally. He had occasional shooting pains in the arms, no difficulty in deglutition, and but very slight dyspnoea. Could not sleep well on his back, and was generally obliged to lean forward. Heart sounds clear, and heard most distinctly in the median line, above and below the tumours.

* See Dr. Bäumlér, Trans. Clin. Soc.; and Dr. Gee's Goulstonian Lectures on Pyrexia (Brit. Med. Jour., vol. i. 1870) for other authorities and another case.

† Dr. Maclean, Reynolds's System of Medicine, vol. ii.

‡ See also the Report of the Committee of the Clinical Society, Trans. Clin. Soc., vol. iii.

* See Dr. Gee's Lectures, loc. cit.

Circumference of chest over the tumours, thirty-eight inches; slight cuticular discoloration of the left.

After admission the left tumour slowly and steadily increased in size, fluctuation and dilatation becoming more distinct, and the right tumour becoming merged in it. The discoloration increased and decreased, but soon became permanent at the left apex, which was now evidently becoming thinner. Treatment by iron, sedatives (of which chloral and aconite proved the most useful by alleviating pain), and iodide of potassium, in large doses, pushed to iodism.

On the 23rd March, a fatal issue evidently approaching, fourteen inches of fine wire was passed through a long canula of one-sixteenth of an inch diameter into the left tumour from the left side, the wire being passed until resistance was experienced. The canula appeared to move freely in the sac, and only a few drops of black treacly blood escaped. This operation at first appeared to have a beneficial effect, the tumours decidedly becoming firmer and the impulse and discoloration less; but on the 28th March the bulging again increased, until, by the 9th April, it was almost nipple-like, the skin thin and black, and rupture imminent. The respiration on the left side also became feeble, and at times almost deficient. Nine fine needles, two and a half inches long, were then passed into the tumour at different points of the circumference, their points being directed so as to cross one another about an inch and a half below the prominent point. No pain was experienced in passing them, and no blood was lost. On the 11th of April blood began to ooze in drops, at first from the apex. On the 14th, six or eight ounces of blood escaped from it and the wire wound; and on the 16th a further free hæmorrhage. A closely fitting gutta-percha shield was then secured to the chest, with the idea of prolonging life by forming an external and possibly internal coagulum. This shield had a piece of glass let into the top, and a couple of gutta-percha tubes in order to inject if necessary. On the 20th free hæmorrhage recurred; and on the 23rd, when he was evidently sinking, there was a final profuse bleeding, which forced up the case, and he sank in ten minutes.

On post-mortem examination, a fungous, fibrinous coagulum was found extruding from the apex of the tumour, which had completely given way; and on opening the thorax an enormous fusiform dilatation of the aorta, extending from above the aortic valves, which were healthy, to an inch beyond the left subclavian, the aneurism at its greatest point of dilatation having a circumference of eight inches. About two inches from the valves in the anterior wall of the aorta was a large orifice of the size of a half-crown, by which communication was kept up with a sacculated aneurism, of the size of a large orange, lying in the anterior mediastinum between the sternum and the heart, lined with thick, partly organised layers of fibrine. In the sternum, implicating chiefly the left side, was a circular eroded opening, having rough edges, of the size of a florin; and externally, forming the visible tumour, a small sac, of the size of an egg, with organised lining membrane, surrounded by dark fibrinous coagulum, of from three-quarters of an inch to one inch in thickness. The sac was ruptured, there being an opening of the size of a shilling, by which the fatal hæmorrhage had taken place. In the coagulum, embedded in its lower border, was found the wire, coiled up irregularly in the form of a figure of 8. The wire and needles were only partly oxidised. The lungs were healthy, with the exception of a portion of the left lower lobe, which was hepatised. The pericardium was loaded with fat, and adherent throughout to the heart; and there was some serous effusion into the left pleural cavity.

OVARIOTOMY IN PARIS.—M. Panas has communicated to the Surgical Society of Paris (July 26th, 1871) the account of an operation of this kind. Both ovaries were diseased, the cysts were multilocular and contained much colloid matter. A clamp was used on the right side but not on the left. The patient died of peritonitis.

THE Franco-German conflict has deprived 101 German military medical officers of life—6 died on the field of battle, 66 after gunshot wounds, 2 were accidentally killed, 25 died of disease, and 2 met their death in consequence of imprudence.

STENOSIS OF THE PULMONARY ARTERY, FROM ENDOCARDITIS IN FŒTAL STAGE, INCREASED BY ENDOCARDITIS AFTER PUBERTY; DEATH BY PHTHISIS.

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INTEREST in this cardiac malformation has been lately renewed by the views of Lebert, in confirmation of which a case of the *myocarditic* variety, by Dr. Dyce Brown, has appeared in THE LANCET. As the following case of the *endocarditic* variety possesses peculiar features, it is offered to increase the scanty records of a malady as remarkable in its physiological as in its pathological relations.

J. C.—was admitted to Greenwich Hospital from Haslar, with incurable heart disease, and died there on Nov. 5th, 1868, aged eighteen years.

His parents were unknown to him; he believed they died young; and he was brought up at a public institution. He was examined physically before entry in the navy, in October, 1865 (aged fifteen), when no abnormality or disease was detected. He was sent to a training ship, where he was drilled and exercised aloft and in boats. Ten months after entry he was discharged to Haslar, with "disease of the heart and rectal abscess." While there the lad had several attacks of hæmoptysis, in one of which he lost at least a quart of blood. This happened on the 28th of July, 1867, and he was discharged to Greenwich on the 21st of August following.

On admission there the patient's disease was classed "heart disease and phthisis." He was slight and ill-developed; his features were thin and pallid; lips and ends of fingers cyanosed by exertion; pulse 112, small and weak, but regular; respiration 28, and shallow; dyspnœa on exertion; no hectic; digestive powers unimpaired. A harsh systolic murmur was heard over the arterial orifices, extending along the track of the great vessels, and very distinctly over two inches around the third dorsal spine. It was hissing, and loud enough to mask the first sound, conceal the second, and obscure those of respiration. A cavern was detected under the left clavicle, and the murmur was intensified by passing through it.

During the after-progress he had repeated attacks of copious spitting of clotted and florid blood, but in the intervals of these he was cheerful and even playful, although fits of coughing and dyspnœa were brought on by exertion or laughter. His appetite remained unimpaired, and between Feb. 1st and Aug. 1st, 1868, his weight stood at 93 lb. His strength then began to fail, hectic appeared, and in August he lost 2½ lb. weight, and as much in September, after which he emaciated rapidly; in September he had melæna, and early in October he took to his bed. The phthisical signs advanced quickly at both apices; dyspnœa became urgent, and when about to speak he took forced inspiration; lividity of the lips, ears, and tips of fingers was nearly persistent; the cardiac murmur, approaching to whistling, concealed every other sound, and was very distinctly heard at five inches from the ear-piece of the stethoscope resting over the upper cardiac region. Throughout October his cardiac anxiety and dyspnœa were distressing, and hectic with rigors and profuse perspirations left him but little repose. During the last two weeks of life he had continuous hæmoptysis in purulent sputa; his feet became œdematous and extremely tender, and abrasions formed over the sacrum. He expired, as before stated, on the 5th of November, 1868, three years after entering the naval service.

Sectio cadaveris, fifty-six hours after death, by Assistant-Surgeon P. Keelan, in my presence.—Body much emaciated and exsanguined, weighing 72 lb.—Head not examined. Both lungs closely adherent to parietes, indurated with miliary tubercles, and having in each apex a cavern, that in the left being lined with a villous leathery membrane pierced by patent bronchi, and that in the right with a soft gelatinous laver. The heart weighed 11 oz., it was of conical shape, and the pericardium was normal. On looking down the truncated aorta, its valves were seen to be normal; but on looking into the pulmonary artery, it was