Original Communications.

ALARMING HEAD SYMPTOMS, AFTER VIOLENT EXERCISE IN HOT WEATHER, RELIEVED BY QUININE.

By ROBERT L. BOWLES, Esq., Folkstone.

H. W. B., a medical man, stout, strong, and healthy, 28 years of age, and married, was attacked on the evening of July 6th, on his way home from the cricket-field, with most severe headache. He had walked, in the course of the day, about sixteen miles, besides having played for two hours at cricket. The day was hot and sultry. On arriving at home, he went to bed, but the severity of the pain in his head prevented his sleeping. He had also great intolerance of light. During the next two days he continued much in the same state, with the addition of occasional delirium. It was at this time that I was called in, and found my patient complaining of severe splitting pain in the forehead, which was much increased by talking or moving. He earnestly requested me to leech or bleed him, having a conviction that he was suffering from congestion of the brain. The pulse was from 46 to 48 in a minute, soft, and occasionally intermittent; the skin cool and moist; the tongue oedematous and pale, with a soft white fur on its surface; the face, which was occasionally flushed (though without a corresponding heat of skin), wore a singularly indifferent and solemn expression; the ocular conjunctiva was healthy in appearance. He had become restless and irritable, and was constantly throwing himself about in bed. His bowels had been acted upon by a seidlitz draught. A mixture of ammonia, sulphuric ether, and camphor julep, was now prescribed to be taken every four hours, and a full dose of liquor opii at bedtime.

July 9th, 8 A.M. The patient had passed a comfortable night, and appeared much relieved, his countenance wearing a more natural expression. In the afternoon, however, the symptoms returned in all their severity. The opiate was omitted at bedtime. A blister was applied to the neck.

July 10th. In the morning, I found that he had been delirious, and had passed a restless night; the pain and intolerance of light were quite as distressing; and he was unwilling to take nourishment of any kind. The bowels were confined, and the tongue had now a brownish coat on the back part. The blister had risen well. A physician, a friend of my patient, called to see him; and, believing the case to be of the nature of sun-stroke, advised eight leeches to the temples, which were accordingly applied, but with no relief to the symptoms. He was now a good deal depressed.

July 11th. He passed a restless night. The bowels were freely relieved by a pill of calomel and colocynth, but each action of the bowels appeared rather to aggravate the headache. The opiate was given at bedtime, and a mixture of sulphuric ether, valerian, and camphor; with beef-tea *ad libitum*. This treatment afforded considerable relief, and gave him a comfortable night.

July 13th. Severe symptoms again returned, which were partially relieved by repeated doses of the stimulating mixture. Mr. Roscow (who now saw the case with me) advised disulphate of quinine, in three-grain doses, to be taken at intervals of two or three hours; care being taken to give the first dose of quinine when the headache was at its minimum. The effect was magical. The first dose prevented the paroxysmal return of headache, and, with its continuance, a rapid general improvement took place.

July 16th. My patient was convalescent, the pulse having risen to its normal standard.

REMARKS. Twelve months ago my patient was living in the island of Grenada, and for nearly two years he suffered severely from repeated attacks of intermittent fever, for which he had taken large doses of quinine with great advantage.

Some features of this case might lead one to entertain the idea of sun-stroke, or of some disturbance allied to that disorder; and the severe headache, intolerance of light, and delirium, would rather suggest an antiphlogistic plan of treatment; but all the other symptoms evidenced a depressed or exhausted state of the system, which for a time was relieved by sedatives and stimulants. It was not until the quinine was given that a real and permanent improvement took place. The severe

attacks of intermittent fever from which my patient suffered twelve months before, the relief he then obtained from large doses of quinine, and the remittent character of his present indisposition, suggested the use of quinine in the present instance; and we have seen with what happy results.

CASE OF TELEANGIECTASIS, OR ANEURISM BY ANASTOMOSIS, SUCCESSFULLY TREATED.

By DRAPER MACKINDER, M.D., F.R.C.S. Edin., etc.,
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[Read before the Royal Medical Society of Edinburgh, Feb. 29th, 1856.]

THE accompanying drawing, made by a local artist, represents a very interesting case of aneurism by anastomosis, of which I have had the treatment. The first portrait was taken when the girl came under my care, Aug. 30th, 1852; and the other about two years afterwards, some eight months before she left the workhouse hospital to live with the family of a clergyman who had shown much interest in her welfare.

Fig. 1.

It will be perceived that the tumour involved nearly the whole of the left lower eyelid. It was circular in outline, extending from the inner canthus to the external fifth of the ciliary margin, and from the canine fossa and malar protuberance to the centre of the axis of vision, having a depth of five-eighths of an inch (which the delineation fails to convey). Its situation, its magnitude, the amount of hæmorrhage which was likely to follow any operative proceedings, the want of success which had attended the curative efforts of other practitioners ere the tumour had assumed so formidable an aspect, and the injury which the eye might probably sustain, rendered this a more than usually anxious case. Various plans of treatment were tried, with different degrees of success. It will perhaps be best to give a sort of commentary on them.

My patient, Emma Buttery, aged 12 years, stated that she had a seton in the tumour for three weeks, when she was but eight months old. In 1848, she was nine weeks in the Lincoln Hospital, without any perceptible improvement. Since that time, the tumour grew very considerably. My late partner, Mr. F. A. Lowe, having successfully treated a large tumour of this kind in the axilla of a boy by means of acupuncture, I tried the effect of the needles on my patient for a few times; without, however, any apparent benefit. I next introduced the needles made red hot, while the girl was in a state of anæsthesia: a perceptible diminution of the tumour was the result. After having introduced the hot and cold needles forty-one times (the tumour was pierced all over every time), in consequence of the slow progress made, the galvanic canter was applied, the tumour being surrounded by platinum wire, which was passed under the integuments, and then brought to a white heat by means of a powerful battery. The pain caused by the incandescent wire was considerable, notwithstanding what has been asserted to the contrary.

From January 17th to March 18th, 1853, the galvanism was applied to the platinum wire, which was allowed to remain, about twice a week. Then ligatures and pressure were adopted for four months, with some improvement. In consequence, however, of the discontent manifested by the girl and her friends at the duration of the treatment, I was induced to change my plan; and consequently, on September 1st, I passed a very narrow double-edged knife under the skin, near to the external canthus, and cut up the whole of the blood-vessels; the hæmorrhage being in a great measure arrested by the immediate injection of a filtered saturated solution of the lactate of iron. The eyelid was a little swollen for a day or two.

On September 16th and 30th, I performed the same operation, but with so little benefit that I determined on varying my proceeding by using an unfiltered solution of the lactate of iron, which, I felt persuaded, would succeed, by its irritant as well as by its coagulating power, in stopping the circulation of the part. On November 13th, after having cut up the tumour as on each former occasion, I injected a drachm of as thick a solution as would pass through the small cannula attached to the syringe. Though but little pain was experienced in former operations, after the anæsthesia had passed off, much was complained of this time; and consequently I was not surprised to find, on the following day, that considerable inflammatory action had been set up. The eye was much chemosed; the lids were swollen and very tense; and I feared that the sight would be lost. The chemosis gradually diminished; but the vitality of a portion of the lid ceased; and, on November 18th, five days after the injection, nearly the whole of the aneurism sloughed, leaving a large gap in the lid, which slowly granulated up, a few small blue vessels only remaining to be obliterated.

At the expiration of four months, I again injected the lactate of iron a few times, but without success, the remnant of the tumour being evidently too small to be affected by the fluid. Pressure and ligature seemed quite useless; and the only means left was the potassa fusa or hot needles. The latter I applied, and cured the case.

Chloroform was inhaled from twenty-five to thirty times, anæsthesia at first being induced in six minutes, at last in ninety. The dose on this occasion was seven drachms; and so great was the coma, which suddenly supervened to a state of vexatious talkativeness, that I feared a fatal result, and did not think it prudent to accede to the wish of my patient to administer it again.

Fig. 2.

It will be observed in figure 2 that there is a little deficiency of the lower lid, which gives a stare, and allows the tears to trickle over in moments of excitement. This defect has improved since the drawing was taken.

Although this case was under observation and treatment about two years, its result (which has placed the poor girl in a position to obtain her own livelihood) amply repays the time and labour devoted to it. I have to thank my friends, Mr. John Lowe and Mr. Jacobson, for their able assistance.

OBSERVATIONS ON ELIMINATION IN FEVER.

By C. HANDFIELD JONES, M.B., F.R.S., Physician to St. Mary's Hospital.

THE mode of determining the amount of uræa in the following cases is a modification of that proposed by Dr. Davy (*Dublin Hospital Gazette*, June 1st, 1851, p. 134). One drachm of urine is poured into a tube graduated into cubic inches, tenths, and hundredths; and the tube is then filled up with liquor sodæ chlorinatæ, diluted with an equal volume of water, and immediately inverted in a solution of common salt. The urine, as it gradually mixes with the liquor sodæ chlorinatæ, becomes decomposed, and nitrogen is set free, which collects in the top of the tube. Much of the liquor sodæ chlorinatæ is wasted, being expelled by the nitrogen as it collects. Some loss of uræa, no doubt, takes place; but not much, I think, as scarce any gas is evolved in the lower third of the tube. After standing some hours, the tube should be shaken, as Dr. Davy recommends, after which some further amount of nitrogen is extricated. In about six hours, the volume of gas may be read off, and the amount of uræa can be easily calculated from it; 1,549 cubic inches of nitrogen = 1 grain of uræa. I do not suppose this method is so accurate as that of Liebig; but it can be very easily and readily performed, and affords, at any rate, results capable of being compared with each other. The main cause of error lies in the circumstance that so small a quantity of urine only can be operated on.

CASE I. R. B., aged 24, was admitted September 30th, 1856. He had been ill seven days. He had severe fever, from which he was convalescent on November 11th. There was diarrhœa, and at one time high delirium. He was treated by salines and a little wine till October 9th, when he got two grains of quinine every three hours. The wine was increased to six ounces on October 10th. Improvement had begun by October 13th.

Urine. October 7th. The urine was of yellowish colour, clear; specific gravity 1014; slightly albuminous, depositing numerous granular and translucent casts. The quantity in twenty-four hours was above 20 oz.

October 10th, during depth of fever. The quantity passed in twenty-four hours was 66 oz., of specific gravity 1018. The total amount of uræa was 534.864 grains; the total amount of uric acid, 23.76 grains. There were many casts deposited.

October 23rd. The patient was taking bottled porter and three ounces of wine; no meat. Convalescence had commenced. The quantity of urine in twenty-four hours was 60 oz., of specific gravity 1017. The total amount of uræa was 468.00 grains; of uric acid, 4.20 grains. Much uric acid was deposited; there were also a trace of oxalate of lime, and a few casts with fungi filaments.

November 14th. He was quite well. He had had ordinary diet and porter since October 27th. The quantity of urine in twenty-four hours was 66 oz., of nearly normal colour, of specific gravity 1017. The acidity per ounce was represented by forty drops of saturated solution of bicarbonate of soda. The total amount of uræa was 490.776 grains; of uric acid, a trace. There was, besides, a copious precipitate of uric acid, which fell down spontaneously, and could not be estimated. There were no casts.

It is clear that the greatest amount of tissue-metamorphosis, as indicated by the urine, took place during the depth of the fever; it was less at the period of commencing convalescence, and increased again somewhat when health was restored, but did not equal then that which went on when the vital powers were most prostrated by the fever-poison. The spontaneous separation of the uric acid during convalescence, as long as the patient was under observation, is worthy of remark. It did not result from superacidity of the urine, as this was notably less than the normal mean (sixty drops per ounce). I have now a patient, who has been under my observation for months, suffering from symptoms of renal degeneration; his urine constantly deposits much uric acid, although the acidity is below the usual mark. The spontaneous separation of uric acid is a very common occurrence in children recovering from scarlatinal drowsy. In all these cases, I do not think the phenomenon is to be explained by the existence of an excess of urates, or of over-acidity of the urine. I rather refer it to an impairment of the function of the kidney, and look upon it as a sign of a weakened organ. Is there any connexion between this state and that which gives rise to calculus?

CASE II. J. H., aged 49, a woodman in Hyde Park, was admitted October 15th. He had been ill one week with typhoid fever, accompanied by some delirium and diarrhœa. He be-