lungs were sound. She had taken a great variety of tonics and sedatives, but had become worse. The patient was seen in consultation with Mr. White, who, at my request, gave a full trial to conium, but without any benefit ensuing. She took five drachms or more of the succus three times a day. Subsequently, she had a fortnight's trial of one of Pulvermacher's large chains; but this was equally inefficacious.

In Case I, the tremor could be arrested by an effort of volition; in Case IV, it could not; in Case III, it was aggravated. In Case II, it could be arrested in one arm, but not in the other. Some sensory disorder was present in Cases III and IV, but scarcely at all in the others. The affinity of the disorder with chorea was very evident in Case II; in fact, I have no doubt the condition was essentially identical with the chorea; but some slight modification of the state of the nerve-cells rendered the symptoms different. The circumstance that Case III gained two stone in weight during his illness is noteworthy. I suppose the exhaustion of nerve-force induced asthenic obesity, just as an acute illness may do during the period of convalescence. It is also remarkable that his abdomen lessened in size considerably as he improved—probably from the intestinal muscles regaining their tone and preventing the accumulation of flatus. The alternation of the limb-affection with impairment of speech (vocal) in Case II is good evidence of the purely neurotic character of the disorder.

[To be continued.]

RECURRENT SYPHILITIC KERATITIS.

By JAMES DIXON, F.R.C.S.,

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WE are wholly indebted to Mr. Jonathan Hutchinson for our knowledge of the special keratitis resulting from inherited syphilis; and he it was who distinctly pointed out the peculiarities of complexion, features, and teeth, which are invariably associated with this form of corneal disease. Among his reports (*Clinical Memoir*, etc., 1863), I do not find an instance of this keratitis recurring in a severe form after an interval of several years, and I have observed only one such case in my own practice; it may, therefore, be worthy of record. I do not mean to assert that recurrence of this affection is in itself very uncommon. One often sees it return after a short interval, when the first attack has been a slight one, and the recovery of corneal transparency not quite complete. The severity of the two attacks, the perfect recovery from the first one, and the long interval of quietude, form the peculiarities of the following case.

H. C., aged 12, came to me January 1st, 1866. He had a pale complexion and very light hair. The teeth were characteristic of inherited syphilis, especially the middle upper incisors, which had what I have called the "screw-driver" shape. The right eye was healthy; the left cornea had a crescentic plexus of vessels along its lower edge, and was so hazy that the pupil could scarcely be traced; No. 20 Jäger being only noticed on black marks. Early in February the right eye began to be irritable, and in the course of three weeks the cornea was as opaque as the left had been. No. 20 type was now not read with either eye. The left eye steadily improved under treatment, and by the end of April could even read No. 1. During May the right eye improved also, and No. 4 could be read; in October, No. 2; and on the 14th December, both corneæ were clear, and No. 1 could be read with either eye.

For more than three years the patient remained well; but about the middle of 1870 he became subject to attacks of epilepsy, and was placed under the care of a physician. At this time sight was excellent, and the corneæ were brilliantly clear. They remained so till May 1872, when the left eye became irritable, the right soon suffered in the same way, and by the middle of June both corneæ were so opaque that all reading power was lost. Under treatment the corneæ slowly began to clear—the clearing commencing, as it always does, at the circumference, through which portion the pupil could be discovered, while the central opacity still remained dense. When I last saw the patient, in December, the corneæ were not yet clear, but he could read No. 12, and was steadily improving.

The treatment on which I rely in this disease is iron, given in those small doses in which alone I believe it is ever beneficial, with only a little mercury; a grain of calomel once in ten days or so, to prevent the iron from injuriously affecting the liver; the only local application, except occasional fomentation with warm water, being atropine. Good diet, and all other means to improve the patient's general condition, are essential in these cases; and I think that blistering, issues, and all so-called counterirritation, only do harm, by weakening the patient and interfering with rest.

ON COLLES' FRACTURE OF THE RADIUS, AND ITS TREATMENT.*

By J. ALEXANDER MACDONALD, M.D.

OF all the injuries which come under the care of the surgeon in ordinary practice, it has been observed by a modern writer on the subject, "few fractures have had so many ingenious splints devised for their treatment; yet, in spite of the utmost care, most cases of this fracture turn out unsatisfactorily, and many are the actions of damages that have been raised on its account."

When we consider the frequency of the lesion, it must appear strange that it was not until the year 1814 that an accurate description of its pathology was given by the eminent surgeon whose name it bears; while in Sir Astley Cooper's classical work on *Dislocations and Fractures*, edited by his nephew, which appeared in 1842, in describing the symptoms of this fracture, Sir Astley remarks: "I have seen this accident frequently, and at first did not exactly understand the nature of the injury; indeed, dissection alone taught me its real character."

Eight years previously, the celebrated Dupuytren, in his *Leçons Orales*, had expressed his belief that what had up to that period (1834) been described as dislocations of the wrist, were in reality fractures of the radius; and, still further, that, in the numerous dissections of wrists which he had made with a view to determine the question, he had never met with dislocation as the consequence of a fall on the palm of the hand, but solely as the result of disease, or to be otherwise explained. (*Vide* Sydenham Society's translation, by Mr. Le Gros Clark, p. 120.) In a foot-note at p. 138 of this volume appears the germ of Gordon's apparatus—viz., "convex splints, adapted with their convexity towards the centre of the arm."

In 1850 was published a *Treatise on Fractures in the Vicinity of Joints*, by Dr. R. W. Smith of Dublin, in which appear Colles' description of the accident, quoted at length from the *Edinburgh Medical and Surgical Journal*, and the author's opinion that Sir Astley Cooper had confounded the injury in question with luxation of the carpus; his words (p. 494) denoting an evident rupture of the radio-carpal ligaments—to wit, "an evident projection of the radius and ulna on the dorsal surface, and of the carpus on the palmar surface of the forearm."

According to the several authorities alluded to, the seat of the fracture is about an inch above the styloid process, and generally transverse; occasionally, however, presenting some degree of obliquity in its course, either downwards and inwards or downwards and outwards.

Referring to the bones of the forearm as they appear *in situ*, we observe the normal concavity of the radius anteriorly; the direction of its carpal extremity forwards and inwards; and the difference in length between its anterior and posterior surfaces, amounting, on an average of specimens, to nearly half an inch.

On the occurrence of the accident, we have the following results; viz., the natural concavity of the radius is lost; its distal extremity, with the carpus attached (in consequence of the unopposed action of the supinator and long extensors) is carried backwards, outwards, and upwards; while the length of the bone anteriorly is augmented in a ratio corresponding to the interval between the fragments, and the interosseous space diminished by the approximation of the upper fragment towards the ulna by the pronator quadratus.

Accepting the above as the pathological conditions presented to us, we have to consider by what means we may best obviate them in endeavouring, first, to restore the form of the radius; second, to bring back its carpal extremity to its proper aspect, *forwards and inwards*; and, thirdly (as a consequence of the preceding steps), to remove the obstacles to the reunion of the opposed surfaces, and, if possible, secure the normal length of the bone (radius) before and behind. How difficult of accomplishment this last point is, may be inferred from Dr. R. W. Smith's testimony that, out of twenty cases of fracture of the lower end of the radius, in none had the normal length been restored; in all, the anterior surface exceeded the posterior (p. 150). These several desiderata have been met by the apparatus known as Gordon's splint, in which the normal curve of the bone is taken as a guide, and the radius thereby forced to assume its proper form and relations; while the carpal surface is directed downwards, the hand being moderately adducted, and midway between pronation and supination finally. They are easy of application; and the feeling of comfort experienced from the support thereby afforded is marked, when contrasted with any other form of splint in ordinary use. To them the motto "*Cito, tuto, et jucunde*," seems especially applicable; and by their employment the

* Read before the South Midland Branch.

opprobria of stiffness, etc., are almost entirely unknown. For additional testimony to their value since Dr. Gordon's paper first appeared in the *Dublin Medical Journal* in 1865, I would refer to a communication to the *Medical Times and Gazette* in the year following by Mr. Lawson Tait, by whom they were again brought under the notice of the profession. In a recent letter to me, he repeats his favourable opinion, fortified by increased observation of more than fifty successful cases, and the too frequently unsatisfactory results of ordinary treatment.

The splints are made by Sloan, Israel Street, Belfast.

NITRATE OF POTASH AND QUININE AS FEBRIFUGES.

By H. MACNAUGHTEN JONES, M.D.,
Extra-Physician to the Cork Fever Hospital.

HAVING for some years past frequently employed nitrate of potash and quinine, in large doses, in diseases where the temperature maintained a high range, and almost universally with success, I determined to select a few cases out of many, which add to the mass of evidence already adduced, to prove their efficacy in febrile conditions.

CASE I. *Pneumonia*.—James Borny, aged 18, was admitted on April 14th. His temperature was 105.4; pulse, 92; respiration, 30. He had great distress of countenance, slight delirium, viscid expectoration, dulness over the lower lobe of the right lung, with moist crepitation and some bronchial *râles*. I ordered for him on the evening of the 14th a saline aperient draught, and a mustard cataplasm to be applied over the lung for twenty-five minutes. On the morning of the 15th, I commenced giving nitrate of potash in fifteen-grain doses every third hour. The respirations were now 36; pulse, 112; temperature, 106 deg. Fahr. That evening there was a slight fall in the temperature; the pulse and respiration remained the same. The nitrate was not given during the night. On the morning of the 16th, I was surprised to find the thermometer (which was about seven minutes in the axilla) up to 108.3. I continued the nitrate every third hour, with the addition of one grain of ipecacuanha. He had on the day previous a blister and constant warm linseed-poultices kept over the dressing; these were continued for the next few days. I visited late on the evening of the 16th, and found the temperature fallen to 104.4; the pulse and respiration remaining the same. The temperature I took but once daily from this date, about midday. On the 18th, I reduced the nitrate of potash and ipecacuanha to one dose every six hours; on the 19th, I omitted them at night; and on the 20th, discontinued them, and commenced a senega and ammonia mixture. The pulse now was slow and irregular; the temperature 97.3; the respiration easy and free. On the 25th, he was allowed to sit up. His diet throughout consisted of claret, chicken-broth, beef-tea, and milk.

The following table shows the variation in the pulse, respiration, and temperature.

Date.	Day of Disease.	Pulse.	Respiration.	Temperature.
April 14	5	92	30	105.8
" 15	6	112	36	106.
" 16	7	112	36	108.3
" 17	8	96	30	104
" 18	9	64	30	100.2
" 19	10	62	30	97.4
" 20	11	60	28	97.3
" 21	12	64	28	97.8
" 22	13	62	24	97.8
" 23	14	63	20	99.5
" 24	15	76	20	99.8
" 25	16	65	18	99

CASE II. *Pneumonia*.—D. Sullivan was admitted on February 25th. Fifteen grains of nitrate of potash, with one of ipecacuanha and James's powder, were given every third hour, after a saline aperient. A vesicant and linseed cataplasms were applied as in the last case. This case was complicated with icterus, strongly marked. On the 28th, there was a return of respiration over the lung, and the icterus was declining. The nitrate was now given every twelve hours. On the 29th, the pulse was slow, the heart's action feeble. I omitted the nitrate, and commenced to give a mixture of liquid extract of bark, ammonia, and chloric ether.

On the 3rd March, he was allowed to sit up. The diet was as in the last case.

The following table gives the pulse, respiration, and temperature, as observed.

Date.	Day of Disease.	Pulse.	Respiration.	Temperature.
Feb. 25	4	102	33	104.8
" 26	5	108	50	105
" 27	6	88	43	105.3
" 28	7	56	28	99.6
" 29	8	56	30	99
Mar. 1	9	44	24	98.5
" 2	10	56	20	98.5
" 3	11	52	20	98.5

CASE III. *Pneumonia, with Typhoid Symptoms, Diarrhoea, and persistent high range of Temperature to the twenty-first day, reduced by Quinine*.—Michael Donovan was admitted, on the ninth day of illness, on April 23rd. His pulse was 120; respirations, 40. He had bloody expectoration, an anxious countenance, and was delirious. The temperature was 104. There was profuse sweating. For the first four days he took alternately doses of mineral acid, and bark and ammonia; and he was supported with claret, beef-tea, and mistura vini gallici, made with milk. On the 27th, he got fifteen-grain doses of nitrate of potash, with ipecacuanha; the mineral acid was omitted. From this date to May 2nd, his temperature continued high; pulse rapid; respirations frequent. Diarrhoea, which had been threatening for some days, now became urgent; it was controlled partly by aromatic sulphuric acid and warm astringents: the nitrate had on this account to be stopped. On May 4th, as his temperature was persistently rising, I determined to give him ten grains of quinine every third hour. There was no apparent effect to the night of the 5th, save that the pulse fell some beats. On the 6th, I increased the dose to fifteen grains every third hour. A fall of three degrees took place during the night of the 5th, and the quinine was continued to the night of the 7th. On the 8th, he got mineral acid with liquid extract of bark. From this date, with little variation, he continued to improve, and was sent into the convalescent ward on the 14th May.

Date.	Day of Disease.	Pulse.	Respiration.	Temperature.
April 23	9	120	40	104
" 24	10	...	...	102.5
" 25	11	...	...	104.4
" 26	12	...	...	104.5
" 27	13	...	...	103
" 28	14	...	...	103
" 29	15	...	...	103.4
" 30	16	...	...	103
May 1	17	...	...	101.5
" 2	18	...	...	101.8
" 3	19	...	...	102.3
" 4	20	108	36	102.6
" 5	21	96	36	103.2
" 6	22	88	40	100.3
" 7	23	88	32	98
" 8	24	96	36	99.5
" 9	25	84	36	98.5
" 10	26	96	36	98.4
" 11	27	84	36	96.7
" 12	28	76	36	99.5

CASE IV. *Intermittent Fever after Small-pox*.—Bridget Culhane, aged 10, was admitted on April 5th. Her pulse was 120; respirations, 36; temperature, 101.2. She had copious diaphoresis, which continued all through her illness, requiring frequent changes of linen. This had been a most severe case of confluent small-pox; she had been discharged from hospital three weeks previously. Her mother asserted that she had been going on well and running about up to a few days before admission, when she took a severe rigor, and the feverish symptoms set in. On the night of her admission, she had a deep mottling over her body, a rash somewhat resembling measles, disappearing on pressure, and giving her face a livid look. This rash disappeared in about forty-eight hours. At times she was delirious, and had a vacant stare on being