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PRACTICAL REMARKS

ON

ERYSIPELAS,

AS IT APPEARED ON BOARD

H. M. SHIP PRINCE REGENT,

IN 1831-32.

With Observations on the different Remedial Measures employed.

By JOHN GOOCH, Esq., Surgeon, R. N.

REMARKS on erysipelas may be thought superfluous in the present day, when so much has been written, and so ably written, by some of our most eminent surgeons, on the subject; but I hold that every man who sees much of any particular disease, will always have something novel or interesting on the subject to communicate to the profession. This consideration, and this alone, induces me to offer the following observations on what I consider to be peculiarities in the disease during its appearance as an epidemic on board the *Prince Regent*, 120 guns, in 1831-32. In addition to this I shall offer some practical remarks on the different modes of treatment adopted by me.

I shall first premise, that H. M. ship *Prince Regent* previous to her sailing in May, 1831, for Spithead, to join the summer squadron under Vice-Admiral Sir Edward Codrington, had been employed about nine years as flag-ship to the Commander-in-Chief in the river Medway; and as ships in this situation, i. e. flag-ships, are always considered "show ships," it is necessary that their decks should be very white and clean. To accomplish this, there are, unfortunately, many commanding officers, who think that nothing but "water and holystone" will do, and thus it often happens, that on board those ships you have, from morning till noon, a chance, in moving about the decks, of having either your shins broken by the ropes, or your shoes filled with salt-water. This plan being followed up for a succession of years, the ship must necessarily be-

come saturated; the drainings must go somewhere.

Send a ship of this sort to sea, fully manned, with 400 of her men, or thereabouts, sleeping on her middle and lower decks, with the ports closed; and although all is beautiful and clean to the eye, emanations of an unhealthy character will take place, diseases will be engendered, and then the question is, "How could they originate?—They cannot be spontaneous!—They must have been brought into the ship!" On the other hand, there are many commanding officers who are extremely careful to have a dry ship and dry decks, and they are rewarded for this by the healthy state of their crews, and the comparative lightness of the sick list. It certainly occasionally calls forth an exclamation of "D—n the dust," but this is all the harm known to be produced, beyond, perhaps, the exciting of a tickling cough in a delicate youngster during the time the clouds are flying.

The disease made its first appearance on board the *Prince Regent* after her arrival at Spithead, on or about the 20th June. Previous to our leaving Sheerness, phlegmasia had been common, and some cases of intermittent, with obstinate glandular swellings, had occurred. After our arrival at Spithead tertians and remittents were abundant; the germ of which diseases had, combined with a damp ship, no doubt been imbibed from the marshes in the Isle of Sheppy prior to her sailing.

As to what I consider to be the peculiarities of the disease as it occurred on board the *Regent*,—one was its disposition (when attacking idiopathically) to seize on the glandular structures of the body, and on particular sides. If, for instance, it attacked the throat, it was the *left* tonsil; if the femoral glands, it was those on the *right* side; if the mamma, it was the *right* side; if the testicle, it was the *left*. From this there was *no deviation*. If the disease was produced locally (i. e. by wounds or injuries of any sort), then the glands of each side became swollen, and often suppurated, according as they lay within reach of the disease.

As to the premonitory symptoms, the rigors were often so severe, that it was difficult to say at the moment if the patient was attacked by a paroxysm of intermittent, or by the prevailing epidemic. In the latter case, the stage of excitement always called for the free use of the lancet, and the bowels to be freed by a bolus of calomel, washed down with ζ ss sulph. magnesiae. The next day there would be a perfect remission of the febrile symptoms, and the patient would declare himself convalescent. He would then get a solution of neutral salts, combined with the tartrate of antimony, *ter die*. The next day he would be still better, and often beg that his grog might be allowed him, but at the evening visit he would be sure to complain of a sore throat and difficulty of swallowing. On examination, the *left* tonsil would then be found swollen and inflamed, and we at once knew what was to follow, viz. erysipelas of the face, and probably of the hairy scalp, and the next three days would determine whether the man standing before us should live or die, so rapidly did it spread after this to the mucous membranes of the nose and throat, and over the integuments of the face and scalp. In these cases, a large blister to the external fauces—keeping the bowels free by a solution of neutral salts, combined with the tartrate of antimony,—and scarifications of the face, with incisions through the integuments of the hairy scalp, afforded the most relief.

Employment of Lunar Caustic.

And this brings me, in the first place, to Mr. Higginbotham's practice of applying lunar caustic in cases of erysipelas, which I do not hesitate to affirm will be found a remedy of great value as an external application in erysipelas of the head and face. That we saved three lives by it in the *Prince Regent* I am morally convinced, and for the truth of this, I appeal to my two very able assistants, then in the *Regent*, viz., Mr. Wart, now of Greenwich Hospital, and Mr. Samuel Browne, at present in the *Victor* sloop of war. But—with all deference to Mr. Higginbotham—to produce these beneficial effects it must not be applied after his manner, that of "washing the parts, and then drawing the stick of caustic over them;" but a very strong solution, strong enough just to vesiccate the parts, must be applied by means of a small piece of sponge or soft lint over every part of the face and scalp affected with erysipelatous inflammation; and that very effectually too, as a great deal depends on every part of the surface affected by the disease being fully vesicatted by the solution. The patient will probably roar out lustily during the process, or if comatose,

will struggle against the application, from the pungent pain it produces; but this only lasts about fifteen minutes, when a calm takes place, followed by a good night, and in the morning you will probably find your patient in a state of perfect apyrexia, collected, and free from pain; every part of the head and face, however, touched by the caustic solution, will be perfectly black, but desquamation takes place in about a fortnight, and the skin resumes its natural colour, and your patient, from the relief he has experienced, is very well content to be a "south down" for so short a period.

The first case in which I used this application was that of a stout lad of the name of Tulle, 18 years of age, who had extensive erysipelas of the face extending over the frontis, and making its way rapidly to the hairy scalp. He had been bled, purged, had cold washes constantly applied, and had taken salines with antimonials, but still the disease progressed, the pulse fell, and at times intermitted, and he was also becoming comatose. I now determined to apply the lunar caustic, and, with a strong solution, fairly and fully pressed every part of the erysipelatous surface, the patient crying out lustily all the time, from the pain caused by the application. This was at the evening visit. In the morning there was scarcely a vestige of fever remaining; he had slept well and was quite collected, and from this time hardly required any medicine beyond a slight tonic during convalescence. In a fortnight desquamation of the cauterized surface had taken place, the face resumed its natural appearance, and he returned to his duty.

Another man, of the name of Poole, ætat. 22, after a severe paroxysm of fever, had the peculiar affection of the *left* tonsil, followed by inflammation of the mucous membrane and integuments of the nose, spreading upon each side over the face. We attacked this with nitrate of silver solution, and stopt the inflammation, so that there might be seen about the *Regent's* decks one man with a black snout, another with a black face which would defy the recognition of his nearest friend, another with a black ear, and so on, according to the locality of the disease, causing a great deal of conversation among the ship's company how these things should be, after which the remark would follow that the "doctor was always either cutting or burning somebody;" alluding to the incisions necessarily made in very many cases of erysipelas of the extremities.

Sir Richard Dobson's Mode of Scarification or Puncturing.

This was extensively tried by me in what may be called circumscribed cases of erysipelas, (I know the objection to which the term is liable,) but I mean those cases in

which the surface over the patella is attacked, only extending partially around the joint. Of these we had great numbers, with others attacking the middle third of the anterior part of the leg, and connected with inflammation of the femoral glands. In all these cases I scarified freely with the shoulder of a bleeding lancet—more freely indeed than recommended by Dobson; and although the parts would often bleed so copiously as to produce partial syncope in strong athletic seamen, I know of no one case that did not go on to suppuration. That great benefit was derived from the hemorrhage I allow, but the disease was never stayed.

In extensive erysipelas of the face this method has proved, and always will prove, extremely valuable when used freely and fearlessly, but in the extremities I must say it always disappointed me, for with us the cellular substance was almost invariably disorganised, and out it must come sooner or later.

The French Method of Mercurial Inunction.

This we tried in some cases, and I am disposed to think highly of it when judiciously employed; but my method was to apply it thickly, spread on linen, enveloping the whole of the erysipelatous limb, and renewing it every 24 hours. In one severe case of the upper, and one of the lower, extremities, it was decidedly beneficial, but I should be disposed to place reliance on it more where the disease is *cutaneous* than where affecting the cellular tissue. If it prove useful, you will, in about 48 hours after its application, find the limb becoming soft, and the skin corrugating, with desquamation following in its train. During its application, purgatives, with salines and antimonials, must not be omitted. Indeed the bowels should always be kept in action until the disease has reached its crisis.

As regards the general treatment of the disease in the *Prince Regent*, it was active in the highest degree while we remained in the Channel and off Scilly. Sailors full of beef and grog are not to be treated like old ladies or young misses, with potions and diaphoretics. Venesection, frequently repeated, free purging (and here a large dose of calomel must always have precedence), salines with antimonials, cold lotions and *free* incisions (when called for by the tension of the parts or the state of the sensorium), were all had recourse to with the best success; for although many were a good deal crippled by contractions, the result of the necessary free incisions made on the extremities attacked by the disease, the mortality only reached one in every fifteen cases.

But this ratio was soon to be frightfully

increased. On the 10th of September, 1831, we sailed from Spithead, bearing the flag of Rear-admiral William Parker, C. B., for the river Tagus, in company with the *Asia* 84. At this time we had not a single case of erysipelas on board, nor had there been one for several days, and it was hoped we had got rid of the disease. A large quantity of chloride of lime, supplied by order of Sir William Burnett, had been expended in purifying the ship from "stem to stern," and from the hold to the upper deck. However, when we got to the southward, past Cape Finisterre and on the coast of Portugal, with warm weather, the disease reappeared with more virulence than ever; the premonitory fever assumed a typhoid type (it had hitherto been inflammatory), and patients were brought forward to the "Sick Bay," staggering, and with drunken countenances. On inquiry, perhaps you would find that they had been ailing for a day or so, but had not applied for medical aid, and on stripping them to put them in a sick cot, you would find erysipelas on some part of the body, arising from the slight bruise of a rope across the legs, or from the ratlines of the rigging in going aloft. In two or three of these cases the prostration was so great that nothing could rally them, and they died almost before you could look around.

We now lost one in every four cases, and the men became as it were panic-struck,—every bruise and every wound, however slight, taking on the erysipelatous inflammation, and some of them proving rapidly fatal.

In this dilemma Admiral Parker—whose solicitude for and anxiety to do anything and everything that could alleviate the sufferings or add to the comfort of the sick, is beyond all praise—at my suggestion and recommendation, backed by the medical officers of the squadron, looked out for a ship that could be appropriately fitted up as an hospital ship, and the *St. Patrick* steamer being unemployed in the Tagus, was engaged for that purpose at a very trifling expense, her spacious cabins forming excellent accommodations for the sick. To this vessel, then, all the erysipelatous cases were removed, and every case occurring afterwards was always instantly sent to the same place. This effectually checked the disease, and rendered the cases controllable, for in a few hours after being removed to the *St. Patrick*, a decided change for the better took place. Indeed so obnoxious had the air of the ship become, that neither wound nor sore, however slight in itself, however healthy the subject of it, would heal on board, but were all obliged to be sent to the hospital ship, where they healed kindly and readily, with

the most simple dressings. For some months we had no instance of a wound healing by the first intention on board the *Prince Regent*.

In January 1832, we were ordered home, and on the 24th February following were paid off at Portsmouth, the disease clinging to us to the very last, a marine being attacked by it on his march to Chatham after disembarkation, and a seaman being sent to Hasler Hospital not many hours before the ship was paid off.

P.S. I understand, that on the *Prince Regent* being cleared at Portsmouth when in ordinary, an amazing quantity of foul black mud was found in her hold, which probably accounts for all our troubles.

Sept. 1st, 1832.

REMARKS ON
BERIBERI,
WITH CASES.

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THIS disease is, in a great measure, peculiar to the island of Ceylon, and the Malabar coast. It has likewise been observed in the neighbourhood of Madras; and I have heard it asserted, that it has been seen in Bengal; but of this, I believe, we have hitherto had no certain information. It is most prevalent during the change of the monsoon, and has been generally supposed to arise from checked perspiration. In warm climates both soldiers and seamen are in the habit of exposing themselves during the night, while asleep, without the protection of any covering, to the comparatively chilly atmosphere, after having been bathed in perspiration during the greater part of the preceding day. I had an opportunity in August 1830, while near to Ceylon, of seeing two cases of the disease, and they were both attributable to this cause. The men were likewise of weak and debilitated habits of body—one of them much addicted to the use of intoxicating liquors, which propensity his employment, as one of the cuddy servants, afforded him better opportunities of indulging than either a sailor or soldier while subject to the rigid discipline of a well-regulated ship.

To Mr. Hamilton we are indebted for much of the little we know of this singular disease. Till his paper was published, I am not aware that we were in possession of any accurate knowledge of its pathology, if we except the unconnected, and, in many respects, unsatisfactory accounts contained

in the work of Mr. William Hunter, on the diseases of Indian seamen. Till lately, it was generally treated as a disease of debility; but the result of Mr. Hamilton's dissections will amply satisfy any one of the treatment that should be pursued. Had I been so fortunate as to have seen this paper before the two cases I am about to relate came under my observation, blood-letting should have been employed to a much greater extent than I at that time deemed it prudent to venture upon.

That the disease arises from checked perspiration admits of but little doubt; but, in addition to exposure, Mr. Hamilton deems previous residence in India necessary; and goes as far so to say, that he knows of no instance on record of an individual being attacked immediately on his arrival in India. There may very possibly be no such case published, but it so happened, that one of the individuals who came under my care, had never before been to the eastward of the Cape. But even although we must allow sudden chill to be the immediate exciting cause of the complaint, it is still in many respects but a very imperfect explanation. For, were we disposed to admit the justness of this conclusion, there is no reason why the disease should be confined to Ceylon and its immediate vicinity. The disease, however, has scarcely, if ever, been seen elsewhere, from which it is evident enough, that there must be some peculiar modifying influence in the atmosphere, or it would not, in a manner, be limited to one particular situation.

One of the cases I saw was much more distinctly marked than the other; for, it should be remembered, that beriberi frequently attacks those who are already suffering from, or it combines and partly identifies itself with, other diseases. In its more advanced stages, it often terminates in hydrothorax or paralysis. In my second patient confirmed hemiplegia took place—the first was what we may term one of uncombined beriberi, that is, with symptoms referable to no other complaint.

CASE I.

William Firs, aged 28, was attacked on the afternoon of the 25th August 1830, the ship being at the time in 5 30 south latitude and 81 33 east longitude. Had during the greater part of the voyage been in the habit of sleeping on deck, without any covering; was of a pale, heavy, and unhealthy appearance, much addicted to drinking, and had twice suffered severely from scurvy. His appetite was bad. About three in the afternoon, without any assignable cause, he began to feel faint and languid, with disinclination to any exertion. In this state he had some brandy-and-water, which only