

issue of those cases in which the examinations were made. The inflammation may be simply in the larynx and its vicinity, or it may extend down the whole of the trachea and even into the bronchia; but from what I have seen I am inclined to believe, that when the larynx is primarily attacked, the inflammation is generally limited to that part and to the pharynx. Though my own experience in laryngitis is little in favour of those methods which I have seen the most effectual in other inflammations, yet I would not be understood to insinuate, that bleeding may not be beneficial in some cases; but certainly from what I have witnessed I shall in future place my chief reliance upon the early, and, if necessary, the repeated administration of antimonial emetics, and consider other expedients as merely secondary, until a more efficacious mode of treatment shall be discovered. In this formidable malady it will be found of the highest importance to watch over the patients most narrowly even when a signal remission of the symptoms is obtained; for the inflammation is so exceedingly liable to return, that if the emetic should be neglected on the occurrence of each relapse, the danger would probably be so much increased by the delay of a few hours as to render it then ineffectual. In some of the examples in which the emetics were given I staid with the patients in order to ascertain if possible its mode of operation. The first effects which seemed most evident was an increased secretion of mucus from the fauces, and I suspect also from the membrane of the windpipe, the next was repeated and pretty strong attempts at inspiration which really appeared somewhat to relieve the stricture of the larynx, probably favoured by the flow of mucus from the adjacent parts. But the decided relief did not take place till full vomiting supervened, during the whole of which the larynx was much moved by the muscles then in action; and probably this very motion had some effect in changing the condition of the circulation in those minute capillaries which are the seat of the disease. But the vomiting is attended and followed by a pretty copious discharge of mucus from the throat, and as this influence of an emetic perhaps extends throughout the trachea, the fulness of the affected

vessels may partly be thus relieved. On keeping my hand upon the pulse before, during, and after the operation of the emetic, I could not perceive that it underwent any very material change; so that in these instances its efficacy could not be referred to its action on the heart (49).

Since the above pages were composed a case of laryngitis has occurred to me which was fatal, notwithstanding the administration of emetics. It may, therefore, be useful to enter into some of the particulars. The patient was an old, spare woman who had just recovered from a severe attack of fever, and was very weak when the affection of the throat took place, seemingly from exposure to a current of air, which is one of the most common causes of this disease. Unfortunately the symptoms of laryngitis had existed nearly twenty hours before I saw her. An emetic of antimony and ipecacuanha was immediately prescribed, and it gave her so much relief, that all the most urgent symptoms were suspended for a considerable time; but she began to complain of a deep-seated uneasiness on each side of the throat, and with this the signs of laryngitis returned. The emetic was repeated, some leeches applied over the larynx, and a blister on each side of it extending backwards while small doses of calomel were ordered about every second hour. Relief was once more procured, though much less decided than before. The uneasiness in the neck remained in a subdued degree, and on the day following an erysipelas appeared on the face, and shortly afterwards one of the arms became very tense and painful. The irritation of these attacks renewed the affection of the larynx, and as the patient was in an exceedingly exhausted state, she soon sunk under this complication of maladies. On dissecting the muscles from the fore part of the larynx and trachea, at about the top of the thyroid gland,

(49) Of the use of blisters, nothing is said by Dr. Armstrong. In most of the cases of this disease, they have been very freely used, but we think, with doubtful effect. By Sir Gilbert Blane and other highly respectable physicians, they are, however, much commended. Blane lays particular stress upon their being of a very large size. See *Medico-Chirurgical Transactions of London*, vol. vi.

an abscess was perceived on each side. That on the right side was nearly an inch in length and half an inch in breadth, extending length-ways by the larynx. The one on the left side was not quite half the size. These abscesses were situated under the blistered surfaces of the skin, and, had there been none other, perhaps might have been attributed to the influence of the blister, though beneath the muscles. On pursuing the dissection, with a view to remove the larynx and pharynx with their continuations in part, a considerable abscess was found between the muscles of the pharynx and the bodies of the cervical vertebræ. This abscess extended nearly three inches in length and one in width, and did not contain more pus than sufficient to separate its front and back surfaces. The cellular substance surrounding was somewhat thickened, and the vertebræ sound. The whole of the membrane lining the fauces, pharynx, and larynx, was thickened and its surface covered with pus mixed with mucus. The epiglottis was highly red at its under part and slightly so at its upper. The follicles of the tonsils contained purulent matter, and one of the right side was considerably distended. If this case had been seen earlier possibly it might have ended favourably, though in patients weakened by a previous illness the supervention of any inflammatory disease is always peculiarly hazardous; for even if it should be once subdued, it is not only very liable to return, but to be combined, as in this instance, with other serious irritations. The extent of the inflammation, however, here discovered by dissection would strongly point out the propriety of uniting to emetics those remedies most approved for the reduction of inflammation, whether it be seated within or on the surface of the body (50).

(50) There is one circumstance in relation to the management of this formidable disorder which cannot be too frequently presented to the recollection of the practitioner, and that is, the necessity of a prompt recurrence to the operation of tracheotomy in all those cases where the patient is threatened by the more urgent symptoms. Many lives have been lost through a temporizing timidity in this respect. In itself the operation is both simple and safe, and in many cases furnishes the patient the only chance of safety.

ERYSIPELAS.

For practical purposes, erysipelas may mostly be regarded as an inflammatory disease, the seat of which, when simply external, is in the skin; but as in the case just reported, the parts beneath are liable to be implicated, especially the cellular membrane, and the fasciæ of muscles. Erysipelas has been presented to me under two forms, the first of which, by way of distinction, shall be denominated phlegmonoid, the second erythematic; though these are merely modifications of the same disease, and solely dependent for their peculiarities on the condition of the patients whom they attack. It was the phlegmonoid erysipelas which I frequently met with in the country; and the erythematic I have often seen in the metropolis. By contrasting the proper symptoms of each, and the constitutional differences of their subjects, it is hoped, that some doubts and difficulties will be removed in regard to the treatment; and first then for the consideration of the phlegmonoid erysipelas as it occurred to me in the country. The phlegmonoid erysipelas attacks those who had been previously either robust, or at least tolerably strong. The part affected is of a bright red colour, and much swollen, and the attendant fever of the full inflammatory type, the heat being high, and the pulse expanded and resisting; excepting where an internal inflammation is combined, and then the pulse is liable to be depressed, to be smaller but still tenser than natural. This species of erysipelas commonly terminates either by a considerable effusion of serum into the cellular membrane adjacent, or by suppuration in that membrane, but occasionally by gangrene; and on these accounts, as well as the nature of its primary symptoms, it has so strong a resemblance to phlegmonous inflammation, as to justify the epithet phlegmonoid.

The phlegmonoid erysipelas resembles typhus thus far.

that it is either simple or complicated,—simple when the cutaneous redness and the fever are not connected with an internal inflammation, and complicated when they are co-existent with an internal inflammation. In the simple phlegmonoid erysipelas, however, what are called increased determinations of blood frequently take place in different organs, or rather there is an interruption or distension, in the vessels of those organs, which does not usually amount to positive inflammation at any time, but which may pass into inflammation from the continuance of the general excitement. In a word, the simple form of this disease may be converted into the complicated, from the increased action of the heart and the increased re-action of the arteries operating on topical predispositions which had before existed in a latent state; and the more the subject is examined the more certainly will it appear, that most visceral inflammations are the mere effects of general excitement, the force of which is only so decidedly directed to particular parts, because those parts had been previously weak, or otherwise morbidly disposed. The secretions of the liver are especially liable to be disordered even in the simple phlegmonoid erysipelas, and with them the functions of the whole surface sympathize: indeed a large majority of erysipelatous attacks may be traced to the influence of the atmosphere, or to other causes which operate on the skin and liver, between which so remarkable a consent exists; and in those persons who are most liable to erysipelas it will generally be found, that they are subject to bilious disorders, and to irregular conditions of the skin as to temperature and perspiration. When inflammation of any of the vital organs does arise out of the simple phlegmonoid erysipelas, it is in general the gradual product of a moderate excitement, and assumes the sub-acute character; whereas in the more originally complicated form, the visceral inflammation rapidly supervenes an impetuous excitement, and assumes the acute character, the affection of the cuticle being then commonly the secondary disorder.

When the phlegmonoid erysipelas follows blows or injuries of any kind of the head, more than ordinary care is necessary, for the brain and liver are apt to be inflamed; and I have

seen some cases of this nature where the inflammation stole on in the most insidious manner and at last proved fatal, under the mask of the external affection. In all the dissections which I have made, in fatal instances of the phlegmonoid erysipelas, the brain, or its meninges, the liver, or the intestines, had visibly been the seats of that internal inflammation, which is so frequently the cause of death in this disease. The symptoms, therefore, already enumerated in the inflammatory typhus will enable the practitioner to detect the modifications of the complicated forms; and from what has just been advanced it will hardly be necessary to remind him, that he ought never to allow the mere cutaneous disorder to withdraw his attention from what may be going on in the vital regions of the interior.

If the simple phlegmonoid erysipelas be early attacked by proper measures, it will hardly ever become complicated; and so far as I have observed, it may commonly be removed within the first nine or ten days, provided the remedies be applied from an early period; but when the remedies are not thus early applied, it will often continue much longer, though it may generally be conducted to a favourable issue, by carefully watching over the viscera. At the commencement, one decisive bleeding from the arm should be employed, and immediately afterwards several leeches applied over the external seat of the affection: an antimonial emetic should then be administered,—the bowels freely evacuated by calomel, jalap, and neutral salts,—and a blister afterwards placed either between the shoulders, or over the region of the stomach. These measures, executed in rapid succession at the beginning, will often entirely subdue the disease in a short time, or at least render it so manageable, that it will yield in a few days to a regular perseverance in purgatives and an antiphlogistic regimen. When the abdominal secretions are much disordered, tolerably full, and even repeated, doses of calomel will generally be needful, in combination with small ones of antimony; for by the conjoint use of these preparations, an aperient, sudorific and nauseating effect may usually be produced, which most frequently tends to restore the pa-

tient rapidly to health again. The only topical remedies (51) to which I am partial, for the phlegmonoid erysipelas, are leeches, and cold saturnine lotions; but the former are infinitely preferable, and indeed in my practice they have proved exceedingly useful, when early applied, which is more than I can say of the saturnine lotions. Some time ago, I saw an erysipelas of the face apparently repelled by a stream of cool air, which played upon it from a broken pane in the room where the patient lay; and signs of coma soon afterwards appearing, death speedily took place with all the common indications of apoplexy, but an examination could not be obtained to ascertain the precise state of the brain. The result of this case certainly seems to bear strongly against the application of cold in one form of erysipelas; but as it is unfair to draw a general conclusion from a particular instance, I wish this merely to stand as a fact fitted to attract notice; and at the same time it is only proper to remark, that I have never known an erysipelas to be repelled by cold saturnine lotions (52), though I have seen them very often used. We have been in general dissuaded from the employment of leeches in erysipelas, from their bites having been said to induce gangrene; but from ample experience I dare venture to assert, that this is an occurrence which need never be dreaded in the erysipelas phlegmonoides, when the leeches are early applied in robust habits; and in such they may be safely and beneficially repeated two or three times in the course of the disease, though

(51) Our author does not appear to have been acquainted with a practice which originated in this country, and which has been attended with the most decided success in the management of this disease. We allude to the application of blisters immediately over the part affected. In cases more especially where symptoms of mortification are threatened, they will be found to arrest its progress more promptly than perhaps any other remedy at present known.

(52) As far as our observations have extended, we are decidedly of opinion that saturnine lotions are useful in erysipelas. Two circumstances must however be especially attended to in their employment. The first is, that general depletion and evacuation from the bowels should be premised. The second, that they should in no case be applied *cold*, but *tepid*. A neglect of this latter caution has given rise to most of the objections against their use.

they should not be recommended in the advanced stages, as possibly their punctures might then become gangrenous.

The prompt yet limited adoption of the antiphlogistic treatment will in general not only prevent gangrene on the surface, but those effusions and suppurations, which sometimes produce so much mischief, when erysipelas is seated in the extremities. Dr. A. C. Hutchinson has published a most valuable paper, in the *Medico-Chirurgical Transactions*, in which he recommends the treatment of erysipelas by incision. His plan is, to make several free incisions with a scalpel, on the inflamed surface, in a longitudinal direction, through the integuments and down to the muscles, as early in the disease as possible, and before any secretions have taken place. These incisions, the author says, may be about an inch and a half in length, two or three inches apart, and vary in number from six to eighteen, according to the extent of the surface the disease is found to occupy.* This method was extensively and successfully pursued both by Dr. Hutchinson and several naval surgeons, in that species of erysipelas phlegmonoides, which is so liable to attack the extremities of sailors. From its proved efficacy, and the highly respectable authority whence it proceeds, it is certainly deserving of a more extensive trial in private practice, than it has hitherto received. But those who wish to pursue it, should peruse the precise and perspicuous tract, from which the above information has been briefly cited. It is remarkable what coincidences of opinion and practice may sometimes be found among those who follow the same pursuits, and that too from the independent research of the individuals who so strikingly agree. Though Dr. Hutchinson was not aware of the fact, yet so far back as the time of Dr. Friend, a practice similar to the above prevailed: for the latter observes, in his *History of Physic*, that in an erysipelas, *scarifying* upon the part, when the membranes are loaded and thickened, will often remove the inflammation in a very sudden surprising manner.†

* See *Medico-Chirurgical Transactions*, published by the Medical and Chirurgical Society of London. Vol. v. p. 282.

† See Vol. i. p. 76, of the *History of Physic*. By J. Friend, M. D. The fourth edition. London: printed for M. Cowper, 1750.

When phlegmonoid erysipelas is complicated, the brain and the liver are most frequently involved in the inflammatory action. Under this more serious form of the disease the most vigorous treatment is demanded;—the early, decided, and sometimes repeated, use of the lancet, with free local blood-letting by leeches, promptly succeeded by active purges of calomel, jalap, and the antimonial powder. These steps having been taken, a large blister should be applied as near to the region of the internal disorder as the erysipelas will admit, and the calomel should be continued till slight ptyalism succeed; though it should always be determined freely in the day to the bowels by other aperients, while the excitement lasts, for unless this be done it will be difficult to obtain its specific effect. If the brain should be inflamed, and the erysipelatous affection should be so extremely diffused over the face, neck, and shoulders, as to make the propriety of a blister between the scapulæ more than questionable, it may be applied near the site of the stomach, where it will have a considerable influence over the brain, on account of the sympathy which exists betwixt these two organs. This is no speculative opinion, for in many diseases of the head, I have seen the most unequivocal benefit from blistering the region of the stomach.

In the complicated form of the phlegmonoid erysipelas, the depression of strength is greater from the first than in the simple variety, and the pulse often feels less tense; because the vital functions are more impeded by the additional oppression of the internal inflammation. Nothing, therefore, can be more fallacious than to suppose, in the beginning of such cases, that the apparent depression of strength and of the pulse(53), prohibits depletory measures;—the fact is, that they

(53) If Dr. Rush's essay entitled "a Defence of Blood-letting" be read with attention, he will be found to have anticipated many of Dr. Armstrong's opinions, in relation to a depressed pulse. Among the states of the pulse, indicating the necessity of blood-letting, Dr. Rush, under his tenth head mentions, "a depressed pulse." See Medical Inquiries and Observations, Vol. iv. p. 331. We are more and more convinced that justice has not been done to the Father of medicine in this country.

strongly point out their propriety, and the system will rise, as if relieved from a load, under their administration. A depressed state of the pulse, in the commencement of febrile disorders, almost invariably indicates the necessity of evacuations; for, on minute investigation, it will be discovered, that it is connected either with local congestion or local inflammation. From the outset, the fever attendant on the phlegmonoid erysipelas frequently assumes the aspect of the inflammatory typhus, and then some internal mischief may be most certainly apprehended. It has been my misfortune to witness this disorder treated as one of real debility, in numerous examples,—consequently wine, bark, and all sorts of cordials, were by turns exhibited; yet this treatment, so far from supporting the strength, hardly proved successful in a single instance. Like almost every other acute fever, the phlegmonoid erysipelas is only asthenic in the last stage, in which an universal collapse occurs, as the mere product of preceding excitement or congestion. These opinions do not rest on speculative grounds; their accuracy has been extensively tried and confirmed in the country, not only by my own experience, but by that of many intelligent friends, in whose hands early and free evacuations have been as highly efficacious as in mine. So far indeed did the firm conviction of the superiority of this treatment carry me there, that I have generally employed it, to a certain extent, even in old subjects labouring under the phlegmonoid erysipelas; and instead of having had reason to regret the practice, it almost uniformly was more or less beneficial(54). Since the time of Sydenham, the therapeutics of this disease have undergone many changes in this country. Perhaps there is no one concerning which modern opinions are more uncertain and variable, but we must return to his

(54) We have lately had occasion to test the benefits of this practice in a case which was extremely unpromising. Erysipelas had advanced from the lips which it first affected, to the forehead and the ears, and had already reached the seventh day. Extensive œdema occupied the eyelids and swelled them to an enormous size. Sphacelus was hourly expected. After more consultation it was determined to have recourse to venesection. The effect of this was to elevate the pulse, relieve the pain, and relax the whole system. Calomel and James' powder were administered, and saturnine lotions applied tepid to the parts affected. *She was cured.*