

## BIRMINGHAM AND MIDLAND COUNTIES EYE INFIRMARY.

## SUBCONJUNCTIVAL OPERATIONS FOR SQUINT PERFORMED SINCE JUNE 24TH.

By J. VOSE SOLOMON, F.R.C.S., Surgeon to the Birmingham and Midland Counties Eye Infirmary; formerly Honorary Surgeon to the Birmingham General Dispensary.

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CASE VI. Margaret T., aged 30, had double convergent strabismus of old date. The internal rectus of each eye was divided subconjunctivally on the 25th of June.

*Result.* The position of the eyes and the power of convergence are normal.

CASES VII and VIII. Bartholomew C., aged 21, has been affected with convergent squint for twenty years, and has been refused admission into the police force until the deformity is removed. The squint alternates; vision is normal. Subconjunctival operation on right eye June 25th. On the 29th, the eyes preserved a normal position in whatever direction they turned. On the 1st of July, the eye operated upon squinted in consequence of contraction of the material that had been exuded to repair the divided parts, and a squint was also established in the fellow organ. Occlusion of the latter, and exercise of the right, having failed to restore the eye operated upon to its proper position, it was ligatured to the temple, and the object sought was gained. On the 10th of July, the squint in the left was cured by subconjunctival myotomy.

*Result.* At the present time the eyes possess a normal power of convergence, and are in all respects natural, with the exception of the redness that ordinarily follows an operation. The man has been placed on the strength of the police force.

CASE IX. Edward E., aged 18, from Harley, near Stafford, has double divergent strabismus. The right eye is the worst: just beneath, and a little to the outer side of the centre of the pupil, is a thin opacity of the cornea. Mr. Solomon, having first ascertained that vision is improved when this eye is brought to the centre, divided, on the 8th of July, both of the external rectus muscles subconjunctivally.

*Result.* The deformity, which had existed six years, was completely removed, and the mistiness of vision lessened.

CASE X. Edward B., aged 40, is unable to converge the right eye upon an object placed near to the top of his nose. This semi-paralytic condition of the adductor muscle is referrible to a cerebral attack of some three years date. The insertion of the right abductor was divided on July 11th, great care being taken to disturb as little as possible the neighbouring parts. For three or four days afterwards, a slight inward squint was observable, when it subsided, and the ability to converge the eye in a normal degree was regained.

CASE XI. Hannah T., aged 18, has had double convergent strabismus for six years. The right eye has been turned deeply inwards; its vision is imperfect; the outline of large objects is imperfect, and the reading of capital letters (one-eighth of an inch) impossible.

July 10th. Subconjunctival myotomy of both eyes was performed. The right globe was attached by a ligature to the temple.

*Result.* The eyes, in position, appearance, and movements, are natural; defining power of the right is improved.

CASE XII. Eliza G., aged 17, has double convergent squint. The left, which is the worst, has been affected seven years, and is referred by the patient to the occurrence of styes at the period named. The vision is normal.

July 12th. Both eyes were operated upon subconjunctivally, with the same success as in the preceding case, by whom, in fact, she was brought to the Infirmary.

CASE XIII. Charles J., aged 13, strumous and unhealthy, squints inwards, with the right eye excessively, with the left in a slight degree.

July 14th. Subconjunctival myotomy of right eye was performed; and the organ was afterwards ligatured to the temple for forty-eight hours.

July 17th. The eye was in normal position; the convergence of the left had become very decided.

Patients operated upon, 7; males, 4; females, 3. Eyes operated upon, 12; for external squint, 3; for internal, 9.

## Original Communications.

## DIPHTHERITIS, OR DIPHTHERIA.

By J. MILNER BARRY, M.D., Physician to the Tunbridge Wells Infirmary and Dispensary.

BRETONNEAU\* was, perhaps, not very happy in making choice of *diphthérite* as a new name for *angina membranacea*; but as it is convenient to designate a disease, or definite assemblage of morbid phenomena, by a single word, and as *diphthérite*, or *diphtheritis*, has been adopted into the medical vocabulary, we may be content to accept and employ the term, whilst demurring as to its etymological appropriateness. As this insidious disease affects the blood primarily, and manifests itself outwardly on the tonsils before it extends to other parts of the throat, I should feel inclined to denominate it *tonsillitis zymotica*, if required to give it a new nosological epithet.

The absence of eruption and the non-occurrence of cuticular desquamation would help now-a-days to distinguish diphtheria from scarlatina occurring in any latent or masqued form; but if we refer to the histories of the terrible epidemics of sore throat which prevailed in the seventeenth and eighteenth centuries, we shall be disposed to conclude that scarlet fever, scarlatina *sine exanthemate*, and diphthérite, were blended together and described as affections of the throat under various denominations, such as "*angina pestilentialis*,"+ "*pestilens faucium adfectus*,"‡ "*angina alba*,"§ "*angina puerorum epidemica*,"|| "*garrotillo*"¶ "*ulcerous sore throat*,"++ "*malignant sore throat*," "*putrid sore throat*," etc.

As the disease has prevailed extensively throughout the kingdom, and seems likely to establish for itself a place in our nosologies, it would be desirable to agree as to the name by which it should be designated. *Diphtheria* seems to me to have been very needlessly proposed as a substitute for *diphthérite*, apparently owing to erroneous views as to its etymology: the termination *ite*, or *itis*, being objected to, because it is usually employed to indicate the occurrence of inflammation in an organ, and as *diphthera* means "leather", diphtheritis might be supposed to signify "inflammation of leather"—doubtless a most irrelevant name for the disease. But Bretonneau appears to have taken the word *diphtheritis* bodily from his lexicon, as the best word he could find to denote a disease characterised by a white-brown membranous exudation. *Diphtheritis*, according to the lexicographers, is the feminine of *diphtherias*, which, being interpreted, means "clad in a leather frock". Now diphtheritis being "a word of exceeding good command", why should it be superseded by diphtheria?

## CASE OF INTRAUTERINE LACERATED WOUND.

By J. LYNCH, Esq., Blyth.

The following case of intrauterine lacerated wound appears to me strange, and in my experience unprecedented.

On the evening of July 10th, I was sent for to a Mrs. Scott, the wife of a pitman. I was told that she had had a fall, and was in great pain. On my arrival, I had little difficulty in discovering that she was in labour. She told me that she was in the eighth month of pregnancy with her fourth child; that, eight days previously, in attempting to take down a clothes-line, her foot slipped; she staggered backwards three or four yards, and fell on her back against a square piece of timber. From that time until the present, she had suffered much pain, and had not been able to leave her bed.

On examination, I found that labour was well advanced. I ruptured the membranes, and in a few minutes the child was born. It was a female, and in size and development corresponded with the mother's calculation. It never breathed.

While in the act of handing it to an attendant, I felt something on its back, which induced me to turn it over, when we

\* Bretonneau. Des Inflammations spéciales du Tissu muqueux, et en particulier de la Diphthérite ou Inflammation pelliculaire, etc. Svo. Paris, 1823.

+ Weir. De Pestilentiali Anginâ. Basil, 1567.

‡ J. A. Sambati. De Pestilenti Faucium Adfectu Neapoli sæviente. Naples, 1620.

§ J. H. Stark. De Anginâ Albâ, seu Prunellâ. Regiomont., 1690.

¶ Thomas Bartholinus. De Anginâ Puerorum. Lut. Paris, 12mo. 1646.

|| G. G. De Pina. Tratado del Garrotillo. Saragossa, 1636.

++ J. Fothergill. An Account of the Sore Throat attended with Ulcers, &c. Lond. 1748. Or Fothergill's Works, vol. i, 341. Lond. 1788.

witnessed a very extraordinary spectacle. From the middle of the sacrum, along the whole course of the spine to the occiput, it was one continued raw jagged wound, varying from two inches and a half to three inches in breadth, as if the skin and flesh had been violently torn from the vertebrae and ribs. The mass thus separated was found coiled up at the nape of the neck. The whole appeared most unnatural and unsightly, and was redeemed only by the beautiful process of reparation having commenced. The surface of the wound was covered with a pellicle of organised lymph; and the edges had that smooth glistening appearance which indicates incipient cicatrization.

The mother is doing well, but complains much of pain along the spine.

## Transactions of Branches.

### LANCASHIRE AND CHESHIRE BRANCH.

#### ON COUNTERIRRITANTS.

By THOMAS INMAN, M.D., Liverpool.

[Read June 30th.]

THERE is at the present day a wide-spread doubt respecting the doctrine of counterirritation generally, and the use of blisters particularly. It is argued, and very justly, that, if blisters act simply as derivatives or revulsives, it would be most judicious to apply them at a considerable distance from the diseased spots; and yet, as a general rule, experience proves that their value is in proportion to the nearness of the counterirritant to the part affected. But still greater doubts are entertained about the doctrine that the supervention of one disease is efficacious in curing another. The inquiry naturally branches into two directions; first, Is this dogma true? secondly, If so, does it explain the *modus operandi* of counterirritants?

That the dogma is true to a certain extent, there can be no reasonable denial. We are many of us familiar with the phenomena of metastasis in disease. We have seen a white swelling of the knee get suddenly well, while the lungs have as suddenly become affected fatally; both phenomena taking place in the same fortnight. Hydrocephalus may be replaced by cervical abscesses. We have seen erysipelas in the foot get well *pari passu* with the invasion of phrenitis; then the erysipelas has reappeared, but in the calf of the leg, the head symptoms getting well; the disease has again left the leg, and invaded the peritoneum; and has again left this to settle over the shin-bone. We have seen recovery from jaundice followed by a cutaneous eruption; gout in the stomach replaced by gout in the toe; swelled testicle may supervene on cessation of gonorrhoeal discharge; and suction of the mamma in a woman recently confined will produce uterine contraction; pneumonia will sometimes terminate in some critical discharge; and a monthly hæmoptysis may replace the usual uterine flow. Other instances will occur to many of my readers. But, on the contrary, there is abundant proof that the supervention of one disease may occur without any beneficial influence over a preceding one. Thus, ulceration of the bowels will not cure pulmonary consumption; gout in the right will not ameliorate gout in the left foot; diabetes will not cure ascites from diseased liver; injury or traction on the mamma will not produce contraction of the uterus before the normal time for parturition; erysipelas of the skin of the face will not prevent its affecting the brain; sore-throat will not cure syphilitic lepra, nor will an irritant to the urethra cure swelled testicle; pruritus vulvæ is compatible with increasing uterine disease, and nettles rash with ulcer of the stomach.

Granting, then, that there is a limited amount of truth in the dogma, we ask if it can explain the *modus operandi* of counterirritants? Does it explain why a blister will increase an acute disease, and cure a chronic one? Why a blister to the side in chronic pleurisy will do more good than a brisk cathartic, *i. e.*, a blister to the bowels? Why a blister to the head in typhoid coma will rouse a patient who was utterly insensible to the presence of a bed-sore? And lastly, if the doctrine be true, ought it not to lead us to use counterirritants in every disease, no matter what its nature?—a plan the absurdity of which none of us could fail to see.

There being, then, grave reasons for considering the ordinary doctrines respecting counterirritants to be untenable, it be-

comes necessary to inquire whether their operation may not be explained in some other way. The present doctrine is mysterious, and makes great demands upon our medical faith, or rather credulity. In seeking another, we must carefully follow the dictates of observation, analogy, reason, and experience.

I propose to commence by a consideration of the action of certain agents when applied to the skin. We shall then be in a position to deduce some law or principle of action applicable to counterirritants generally, and to show the practical superiority of the new doctrine over the old.

As my time is necessarily limited, I must abstain from long dissertations upon separate facts, and must be content with giving the results of experiments, rather than detail them at length.

Without further preface, then, we inquire what is the action of well known agents when applied to the skin? We begin with arsenic, whose presence can be so well detected by the chemist. Experience tells us that, in the form of arsenical paste, it produces a deep slough of the part to which it is applied; and that, notwithstanding the influence it has upon the tissue, it is absorbed, and passes into the system generally, sometimes in a fatally poisonous quantity. In these cases, the action is most intense in the immediate vicinity of the application, but is severe elsewhere. In other cases, where a smaller quantity is employed, its influence is felt only in the immediate vicinity of the part. Thus Taylor relates a case of a man who accidentally used some arsenical ointment to his anus for piles; next day, both the anus and scrotum were inflamed, many pustules were formed, and the matter contained arsenious acid. Pereira relates another, where a woman used an arsenical ointment to the scalp. It produced great swelling of the head; and in about six or seven days, enlargement of the ears, and of the glands of the jaw and neck. The face was in a sort of erysipelatous inflammation; and, in addition, there were vertigo, fainting, vomiting, ardor urine, etc. In a few days more, the hands and feet were covered with pimples, but she recovered ultimately. Here, then, we have distinct proof of an irritant being absorbed, and operating *principally* in the vicinity of the original application, and more moderately elsewhere. We see another illustration of the same fact in those cases where local palsy arises from local contact with lead, without there being any other distinct sign of the operation of the poison on the system.

Taylor records cases where bichloride of mercury, topically applied, has produced violent local symptoms in the first place, and severe intestinal disease in the second. Pereira gives others where the nitrate of mercury, used locally as a caustic, has been absorbed, with fatal effects on the alimentary canal. Tartar emetic, in the same way, when applied to the skin, produced first a local effect; but, in some few instances, it produces a secondary effect, such as nausea and vomiting. We do not, however, confine our observations to caustics and irritants: we may refer to milder remedies, which, when applied to the skin, have firstly a definite action on the neighbouring parts, and secondly on the system generally.

Dr. Ward of Manchester, in 1809, called attention to the ease with which opium might be introduced into the system, and produce its characteristic effects by means of friction on the skin. I have myself had much experience of laudanum and morphia epithems; and have repeatedly noticed, first a local, subsequently a general effect. The late Mr. Shaw of Cheltenham was in the habit of treating sciatica by the application of a plaster composed of opium, belladonna, colchicum, and resin, to the whole of the lower extremity; and he invariably found that it relieved the local pain in the first place, and affected the system in the second. Applied near the eye, belladonna produces a local effect only, as the absorbing surface is small, and the part soon dries; but when applied to the os uteri on a larger surface, and kept constantly moist, constitutional effects often follow the local ones.

I next pass on to a substance which we can trace by the eye—nitrate of silver. I know a gentleman whose face has been rendered of a blue or slate colour by the continued application of very strong argentine solutions to the fauces: the hands do not partake of the same tint. There can be no doubt of the facility with which mercury may be introduced into the system through the skin, as inunction is habitually resorted to whenever a very rapid salivation is required.

I have adverted to instances in which the action of lead, locally applied, has been manifested by local palsy, without any general effect upon the system. There are many others in which its cutaneous absorption has been followed by general effects.