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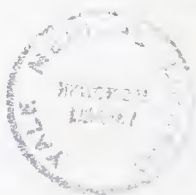
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Dissertation

on

Laryngismus Stridulus.

By

George Elliott Budington,
of New Haven,

Candidate for the Degree of Doctor in Medicine.



If the importance of any individual disease, is ~~to~~ to be determined by its seat, nature, frequency of occurrence, the attendant distress, & the degree of fatality; then the disease of which I propose, briefly & somewhat superficially to treat, demands particular, & attentive consideration.

Laryngismus Stridulus, is a disease, which has been known to & received the attention of Medical practitioners & writers for a considerable period, & its dangerous tendency somewhat over-rated.

Its existence as a disease separate & distinct from Croup, ~~has~~ has been a fruitful source of controversy, & the minds of the profession are still unsettled in regard to its pathology & treatment; in fact almost every

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writer who has treated of this subject,
has different views in these respects.
& each one has given the complaint a
name to suit his own particular no-
tions - Hence we have - "In-ward fits,"
"Spasm of the glottis," "Spasmodic Asthma,"
"Carpo pedal spasms," "Thymic Asthma,"
Child crowing of Gooch; Dr John Clark
called it. A peculiar species of con-
vulsions in infants; &c. &c. I will
in this essay employ the term given
to it by Good, which best indicates
the seat of the disease & its nature

Laryngismus Stridulus. or Strid-
ulous constriction of the larynx, from
λαρυγῆς & stridulus.

The essential symptoms of
this formidable malady, consists in
sudden attacks of breathlessness, caused
by the partial or complete closure of the
rima glottidis, producing of course
partial or total obstruction to the ad-

mission of air, into the wind-pipe, varying according to the degree of closure. with a sonorous inspiration,

When the closure of the glottis is not perfect, the child struggles for breath, the respiration is hurried, the countenance is livid, the eyes staring & each inspiration is attended with a "crowing" sound. When the function of respiration is suspended, the child makes vehement struggles to recover its breath, at intervals of from a few seconds to two minutes; the air is at length admitted through a very narrow chink, producing the peculiar sound.

To these symptoms, often succeed a fit of crying or coughing, which completely breaks the spell, & the paroxysm is terminated; but if the glottis be completely closed for the space of three minutes, the patient dies of asphyxia & he is said to have

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"aid in a fit"

Other symptoms have been enumerated by other authors, one of these is a peculiar contraction of the thumbs, fingers, wrists, ancles & toes, & lasting during the paroxysms.

Some ~~writers~~ writers consider this symptom as essential to the disease, but Dr Ley thinks that such effects are purely accidental & depending upon the paralysis of the extensors. Dr Good thinks, it ^{shows} depends upon a want of balance of power between the flexors & extensors.

It is obvious, from the symptoms & effects already mentioned, that this disease is some-what analogous in its nature to Asthma & Croup. but still with due care in making the examination, the diagnosis is not difficult. The distinctive marks or symptoms between it &

asthma, are that in asthma, the pain & constriction commences in the ~~Larynx~~ Chest, & is chiefly confined there; though it may extend to the lower part of the Larynx, while in Laryngismus stridulus the constriction & difficulty of breathing commences in the Larynx & ~~is~~ mostly exerts itself there; though it may extend down the trachea to the Chest, in the former the respiration is wheezy, but not stridulous; while in the latter the voice is stridulous, the ~~respiration~~ respiration is rarely wheezy or so to an equal degree; showing, evidently, a difference in the seat of the ~~two~~ ^{two} diseases.

But the diagnosis between this disease & Croup is much more difficult, as the general symptoms make a far nearer approach to it.

In Croup the presence of inflammation & the "peculiar concrete membrane-like substance" (of Ford) & the want of them

in S. S. is pathognomonic; as also the suddenness of the accession of a paroxysm of this disease; there are instances, ~~it~~ it is true, of genuine croup commencing abruptly, but they are rare, there are usually precursory symptoms, such as a slight cough or hoarseness, as if the patient were labouring under a catarrh. In croup also, when inflammation has ~~once~~ commenced it remains a permanent cause of excitement, ^{the anxiety &} struggle for breath continues until the inflammation is subdued. in the disease under consideration, the spasm subsides as suddenly as it commenced, though it may return in an hour or even a few minutes, but in the interval; the patient is perfectly at rest. Croup is also almost exclusively a disease of childhood, while S. S. often affects adults.

From the history, I will now turn to the pathology of the complaint, & here

^{we} find "the doctors disagree".

Dr Hugh Ley, thinks that the disease is owing to the enlargement of the absorbent glands of the lungs-- we will let him speak for him-self.

The cause of the crowing inspirations -- is either an enlargement of those absorbent glands, which are constantly found at root of the lungs, both before & behind the trachea & the two bronchia & frequently blend with others, which lie upon the arch of the aorta & not unfrequently with the costals, or a similar enlargement of the deep-seated chain of cervical glands, known under the technical appellation of 'glandulae concatenatae'. The former may be enlarged by exposure to cold, from frequent catarrhs, disease of the lungs, pericardium or heart, from a sthumous taint, & probably from an extinction of diseased action from the continuous cervical glands, which according to Haller & others; constitute a continuous chain with them,

~~of the~~
~~in the~~
In the adult, these glands when morbidly enlarged, may seriously embarrass the respiratory function & even instantaneously destroy life, ^{by} suffocation; in children, when similarly enlarged, they may produce the crowing inspiration, preceded or attended by temporary & sometimes fatal asphyxia.

For the first hint of this pathology Dr Ley acknowledges himself indebted to his former colleague & friend Dr Merriman, since w^h time he has had numerous opportunities for tracing the connection in question & verifying by dissection, the relations which the symptoms bore to the diseased parts. He relates several cases to prove his views & theory & then adds, "I can with perfect confidence assert, that in considerably more than twenty ~~cases~~ successive cases, with one exception only I could trace the enlarged glands, from the commencement; or in the progress of the complaint, they have been distinguished during

life, or discovered after death, & I may now therefore, I trust, without arrogance assume, that enough has been said to establish the proposition, that at least, ^{large} in a numerical majority of instances, of the Croaking of infants, are produced by the enlargement of glands, situated in the course & influencing the functions of the recurrent nerves & sometimes probably the paragum."

In this Dr. Sy is probably correct, but the same disease may be owing to other causes, it may be effected by a morbid thickening of the mucous membrane lining the Larynx & pharynx. -- North considers it an affection of the brain -- But we might go on almost "ad infinitum" in enumerating different theories, ~~but~~ but my time will not permit, & I will only say that the best evidence generally coincides with Dr. Sy. --

But the most important part of my subject remains to be investigated, viz The Treatment of the complaint; & to this all other considerations are subservient, & they

become truly & doubly valuable, when they lead to practical conclusions, which will increase our power in controlling the disease.

We have seen that this complaint may be induced by different causes, & we must regulate our treatment, & the administration of our remedies, according to circumstances. If we should discover tumid glands; we should trace, if possible the cause of such enlargement, & by adapting our remedial agents to that cause strike at the fountain-head.

I will here quote briefly from Dr Ley - "It has been seen, that the connection between this disease & as the effect; and the enlargement of the cervical or thoracic absorbent glands, as the cause; is one of great frequency & intimacy & that the evidence of this essential connection, derives material confirmation from the fact; that the exciting causes of this peculiar malady are precisely those, which, according to the best authorities on such

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subjects, an constantly producing enlargement of these very glands— But we must not conclude that such a condition does not exist, because we are unable to discover the tumid glands, for they may exist, in the neck even, & yet escape our notice; while those situated in the Thorax, will escape our detection by an external examination, & Dr Ley says that "in similar diseased conditions, commonly produce the same or similar results, we infer from the occurrence of the latter the existence of the former."

But this particular pathological condition of these glands, only predisposes to attacks of this disease & they require exciting causes to bring them on; which may be inflamed & sculp - dentition - affections of the Mind, as fear or Anger. &c

Age & hereditary or acquired constitutional peculiarity; the former, of course we cannot control, but if there is any predisposition to this malady, double caution, is requisite, to avoid all things, which will be apt to bring it on.

Climate situation & season, are also among the causes

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& are not the least influential; this disease is quite
frequent in low marshy situations, but it is infinitely
more frequent in crowded cities & large towns.

The regulation of the diet, is also of great consequence.
The child should always be ~~and~~ spared from the
breast; especially when family predisposition ex-
ists, & if from disease; or otherwise, the mother is
unable to perform the duties of nurse, a wet-nurse
should be provided. Dentition is by far the
most frequent local cause & hence the propriety
of freely lancing the gums of those teeth, which
in regular order are next expected to appear.
upon this all writers agree

Straining of the body or violent exercise,
getting, cough, indigestible & irritable articles
of food with-in the stomach or bowels &c may
induce a parotysm. We should endeavor
therefore to prevent or counteract the operation of
these causes —

Besides attacking the predisposing &
exciting causes, we should give our attention
to making up the parotysm, as speedily as

possible, which may threaten death by suffocation.

The child should be put into the warm-bath. (of about 98° Farh.) & continue in it during the paroxysm; or for 10 or 15 minutes at least & while in the bath sprinkle cold water on the face & chest, ~~with~~ which is followed by a short inspiration & a lengthened expiration; which in turn is succeeded by a fit of coughing; & the paroxysm is broken. It is also well to apply ammonia to the nostrils & also, by irritating the pharynx with a feather or the finger to produce emesis. Millar says that purging will abate the paroxysm; but we have not time to wait for the operation of a cathartic; an enema will generally suffice; to which may be added assafoetida or turpentine (if at hand.)

The nurse to save the child from impending suffocation; pats it strongly on the back, or shakes it violently & although it answers the indication; she does not know that it acts upon a well

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Known principle; it causes the child to cry; which is an explosive expiration, & of course opens the glottis

Frictions on the Chest & abdomen are also useful; but these should be employed while the child is in the warm-bath.

For the ultimate cure of this disease; leeches must be employed, during the intervals, between the paroxysms. Dr Marshall Hall advises, that the gums should be freely & frequently lanced; without reference to the teeth; he prescribed it to be used daily; to correct the state of the blood vessels & nerves. In the case of glandular enlargement; if it should be active & there be a tendency to suppuration, it should be encouraged & the abscess opened as soon as possible; if, on the other hand it should be indolent; its absorption should be attempted; & with this object in view. iodine, or its salts must be exhibited. The two great remedies relied upon by Dr Meadman are Aca & Burnt Sponge. The latter owes its ef-

ficacy to the iodine which it contains & Soda corrects acidity; which is so fruitful a source of bowel complaints of Children.

But it will often be the case, that after the most judicious treatment the Complaint will remain unimproved; in fact it may be growing worse & here change of air & place is urgently indicated & for this particular instance; will act almost as a specific.

Dr Ley mentions an instance, when after the use of the usual remedies, there was no improvement, he recommended a removal from the City to the Country & the beneficial influence of it was immediately ~~felt~~ apparent; the parents supposing the child cured; returned to the city; & immediately there was a return of the symptoms.

It will often require, the most judicious treatment; aided by pure Country air to effect a cure of this most obstinate Complaint.

But I have trespassed too long

already, upon your time & patience,
& in concluding the treatment of this dis-
ease, I will repeat the advice of
Prof. Dow of this Institution. often re-
iterated in his lectures. "prescribe
for the symptoms as they occur".

Geo. Elliott. Buntington.

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