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AN  
INAUGURAL DISSERTATION

ON

*Cynanche Trachealis*

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AND MEDICAL FACULTY  
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BY

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# Cynanche Trachealis

It will not be my purpose in treating of this common but important disease, to describe with minuteness, all of its various symptoms peculiarities, & complications, as Medical Authors <sup>have done.</sup> and which is their province to do. but simply to speak of some of the most important of these. also to select such remedies in its treatment as will in my judgment be best suited to the exigency of the case.

There are two varieties of this disease (viz) Catarrhal & Pseudo Membranous Croup. Each of these will be described, separately and in the order above mentioned.

The disease is one peculiar to Infancy and Childhood. Although there are

exceptions to this rule, as cases have been recorded in which croup has stepped aside to make a victim of persons of mature years, even old age has not escaped its ravages but these cases should be regarded as deviations, from a general rule, as instances are comparatively rare in middle aged and old persons. Croup is a disease of great importance, to the Practitioner of medicine, as no one who pretends to practice the healing art but will have his medical skill tested in its treatment, and often, with all the skill & ability, for human to possess he has has to sit pensively by and see his little patients suffer and die amid the wails of a bereaved & heart broken Mother, who, perhaps but twenty four hours before, had dandled her little

treasure upon her face whilst its Joy-  
=ous smiles and ruddy cheeks was  
sufficient evidence of long life. It occurs  
in children, according to the observations  
of Dr Bondie, most frequently, between  
the years of one and five. While some  
contend that it does occur earlier  
than the seventh month having seen  
croup in very young children, others  
deny its existence prior to that time  
I cannot see any good reason why  
very young children may not have  
croup if exposed to the same causes  
which usually brings on the malady  
in the child of two years old. If exp-  
osed to the same vicissitudes of weather  
without a sufficiency of clothing, to  
render them warm and comfortable  
or be suffered to lie upon the cold damp

ground the probability is that they would be as liable to contract the disease as at any other age but such is not the case as they are usually kept warm & comfortable confined to the room and especially is not carried out in cold disagreeable weather.

This I consider sufficient to show <sup>why</sup> it is that very young Infants are less liable to the Malady than older children.

As age advances the mucous membrane of the Larynx & Trachea seems to become less liable to Inflammation consequently in persons of mature years. It is but seldom seen.

The duration of croup is generally from twenty four hours to four or five days although there may be exceptions to this rule. Having mentioned some of the peculiarities of the disease I shall now attempt

Its description with the treatment applicable. Catarrhal Croup is by far the most common of the two varieties. It differs also in being less formidable. occurring during dentition. It is generally of an aggravated character as the powers of the system is much worn and exhausted by the excitement and dysentery that usually attends dentition. Croup may be defined to be an inflammation or high vascular irritation of the mucous membrane of the Larynx & Trachea combined with spasm of the small muscles of the Larynx giving rise to hoarseness, cough, Dyspnoea &c. which as the inflammation progresses or gives away increases or abates. Hoarseness, does not usually attend the common Catarrhal diseases of children, and

when first noticed should lead to the con-  
-clusion that the disease is in its incep-  
-ient stage and should be of sufficient  
importance for the early exhibition of mild  
remedies, which, when early used will  
almost invariably drive back the Mal-  
-ady This symptom usually attends  
croup throughout its whole course becoming  
more or less marked as the disease adv-  
ances to the fatal or convalescent state

The cough is peculiar so much so that  
Authors who have written upon the subject  
have appended the name Croup Cough  
which is dry, sonorous, and ringing, as thou-  
-gh it came through a brazen trumpet.

It has been compared to the barking of a  
small dog, or the crowing of a young  
cock so peculiar is this variety of cow-  
-gh that Parents although accustomed

to the incessant coughing around them from com-  
mon Catarrh are often aroused suddenly by this  
peculiar ringing ~~ringing~~ sound even while  
asleep. Dyspnoea is another very marked  
Symptom. The patient assumes the best pos-  
-ition for the permeation of air, into the air  
-passages. for this purpose he sits up in bed  
sometimes supports himself upon his  
hands & knees, or lies on his back with  
the head somewhat extended. There is  
a peculiar expression of countenance man-  
-ifesting great uneasiness, anxiety &  
a beseeching look, as if imploring  
some relief. with great distention of the  
-nostrils. There is a whizzing sound emit-  
-ed at each Inspiration which as the disease  
advances becomes more distressing, and grating  
to the ears. untill there may be an entire clos-  
-ure of the air passages and the patient is

literally choked to death. Pain attended with tightness or soreness in the throat is another of the chief diagnostic signs of croup. This symptom is usually manifested in the Inceptive stage, but becomes more aggravated as the Inflammation advances. The Febrile symptoms vary according to the degree of Inflammation usually higher towards night. and During the early part of the night the pulse becomes more accelerated. the skin hot and dry. which as daylight approaches to some extent may wear off, and the little sufferer may rest better for several hours. There are a few other signs such as a purplish or livid hue of the lips. Tongue and feeble state of the pulse. cold skin, paleness of the face &c. These are seen most commonly in the advanced stages of the disease. The above symptoms are

generally modified according as the Inflammation has extended along the tract of the mucous membrane of the Larynx & Trachea. In this variety of croup the Prognosis is generally favorable especially if the proper remedies are early applied as a vast majority of children recover. When complicated with other diseases the Prognosis would be doubtful. The Causes of the disease are principally Cold. Exposure to a cold and damp atmosphere, the child being permitted to sit in a current of air after having been closely confined, ~~exposed~~ to a poorly ventilated room, is very apt to bring on the attack. The neck of children being usually exposed and the sudden closure of the sweat ducts has a great tendency to develop the disease. It has been remarked that low damp

Situations are more prolific of Croup than other localities. Having made these remarks with regard to the nature, Symptoms Prognosis & causes of the disease I will now attempt to give the Treatment of the variety called Catarrhal Croup. The first and most important remedy in the Treatment are Emetics these should be used until full and copious Emesis is produced. They overcome the spasmodic condition of the muscles of the Larynx through off much of the tough mucus which accumulates in the air passages equalizing the circulation and acting as revulsives. Some of them by their defibrinizing Influence upon the blood prevents the development of the adventitious tubular membrane which is so characteristic of the second variety of Croup

Speacacuanna for the less aggravated form of croup for a child two years old may be given diffused in water in doses of from four to six grains every twenty minutes until full vomiting is produced

If however the symptoms are more violent one fourth of a grain of Tartar Emetic should be given with the Speacacuanna

As an auxiliary to this treatment the warm bath might be used. As there is sometimes great difficulty in getting the specific effect of the medicine the warm bath aids very much in assisting it to act. Some of the official preparations of these Remedies may answer very well in mild cases viz, Wine of Speacac. & Antimonial Wine in the dose of a fluid drachm. Compound Syrup of Squill enjoys a high reputation.

In doses of twenty or thirty drops repeated at short intervals until emesis is produced. It might be necessary to give a mild Laxative to keep the bowels in a soluble condition for this purpose I would select Castor Oil in the dose of one or two teaspoonfuls. In ordinary cases the above treatment will generally relieve with proper attention to diet which should be light. The patient being kept comfortable & should however the paroxysm return the Emetic may be repeated.

Bloodletting may be resorted to. This should be regulated according to the effects produced. Leeches have been recommended to the throat but as hemorrhage from leech bites is sometimes difficult to arrest in young children and may require compression I would prefer

I would prefer placing them on the upper portion of the sternum. After the inflammatory symptoms has been somewhat subdued Rubefacients, Sinapisms or in very violent cases a blister to the neck may be of great advantage but it would be only in such cases that I would resort to a blister as they make a deep and ugly sore which usually takes a long time to heal, to the great inconvenience of the patient. Tobacco in the form of fomentation or cataplasmon is sometimes very beneficial in overcoming the spasmodic contraction of the muscles it should be used with great caution as fatal prostration might be produced. I should not however resort to this remedy only in very violent cases and after having tried

various other means The Patient should be kept gently under the Nauseating effects of Speac or the compound Syrup of Squill, carefully avoiding the prostrating effects of the Medicine.

Should the symptoms continue persistent Calomel would be of great advantage given in small doses one grain every two hours so as to bring the System intirely under its Influence

I should It have a tendency to pass too freely by the bowels a small portion of Dover's powder would probably correct this effect. The Antiplogistic effects of this medicine renders It a valuable remedy in Croup It appears to me more applicabile in those <sup>cases</sup> that are protracted Its action would seem too slow to rely exclusively upon It yet

I have known Physicians who relied upon it almost Intirely and would argue that large doses of this drug in the commencement of Croup was the best available means. Having mentioned such remedies as are used in the cure of this variety I will now speak of the second variety of the disease (viz) Pseudo Membranous Croup. I shall not attempt to give all the symptoms observable in this form but simply those diagnostic signs which distinguishes It from the Catarrhal or Spasmodic variety of croup. Fortunately, this form of Croup is comparatively rare, in this country. However cases are occasionally met with in ordinary practice and should be regarded as a very dangerous

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disease In the commencement of this form of Croup the symptoms are not so distressing as in the other. The Pseudo Membrane may form almost simultaneous with the Inflammation. There is Hoarseness which becomes more marked as the disease advances untill the voice becomes nearly or quite extinct. The cough is feeble and hollow. Always more or less fever in which there is but little remission. Patches of plastic exudation may be seen on the fauces. Portions of the membrane may be coughed up which is always diagnostic of this form of the disease. The loss of the voice is also very Inductive so much so that Dr Wood has been enabled to detect the disease before there was much febrile excitement even while the patient was enabled

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to go about the house. but as this symp-  
-tom sometimes occurs in the Catarrhal  
-variety of croup it should only have we  
-ight in connexion with other symptoms

The Prognosis of this variety of Croup  
is always doubtful. Should there be  
some abatement of the symptoms the  
cough becoming looser or the child  
is enabled during the paroxysm of cou-  
-ghing to throw off portions of the false  
membrane. It should be regarded as  
favorable to its recovery. but should the  
symptoms continue persistent the pulse  
becoming quicker the extremities cold &  
clammy great difficulty of breathing and  
the probability is that that the Inflam-  
-mation and tubular membrane has exten-  
ded into the Bronchi the prognosis would  
-be unfavorable. Having given some

of the diagnostic signs of this variety  
of Croup I will now mention a few  
of the remedial agents to be employed  
in its treatment. The first thing  
after having used some of the Emetics  
recommended in the Catarrhal form would  
be first to secure the separation & expul-  
sion of the false membrane lining the  
Larynx & Trachea. A few drops of the  
compound Syrup of Squill given every  
two or three hours would promote expul-  
-sion and aid greatly in loosening  
the membrane consequently would be  
of great advantage in the treatment.  
Other medicines may also be used for  
this purpose viz, Spicacuanha Tarter Emetic  
or their officinal compounds. The expul-  
-sion of the membrane for the clearing out  
of the air passages for this purpose

Alumina Sulphate of Zinc or Copier Speare  
or if the system be not too much reduced  
Garter Emetic may be used. either of these  
may answer. They should be given in Emetic  
doses. As the formation of a Pseudo  
Membrane does not depend entirely up  
-on a high degree of Inflammatory  
action but a peculiar condition of  
the Blood in which there is an excess  
of fibrine It is better to strike at the  
foundation of the the disease For  
this purpose a purgative dose of Cal  
-omel should be exhibited followed  
by <sup>small</sup> doses of the same until the system  
is brought under its Influence or un  
-til its defibrinizing effect is produced  
employing small doses of Dover's Pow  
der: when the medicine is disposed  
to act too fully upon the bowels

Having given the general Treatment of this form of Croup I will now mention some of the local applications which might be resorted to with great benefit Such as cataplasms Rubefacients Sinapisms & Blisters. The resorptive effects of these remedies have an effect in overcoming the Inflamed condition of the mucous membrane of the Throat cupping between the shoulders or on the upper portion of the Sternum is also a good remedy & Bloodletting if resorted to should be in the commencement of the disease If however the Febrile Symptoms should <sup>be</sup> very great a moderate Bleeding might be of great service It now remains for me to notice some of the Anatomical characters of each variety of Croup. In the Catarrhal form these

is more or less redening of the mucous  
membrane sometimes small patches  
of plastic matter may be seen but not  
sufficient to have caused the fatal result  
Swelling of the sub mucous tissue  
may also be observed. In the Pseudo  
variety there is always a membrane  
formed within the Larynx & Trachea  
extending frequently from the Larynx  
down into the Bronchi the mucous  
membrane is usually colored. The Lungs  
frequently present the appearance of  
lobular Pneumonia. and often there is  
an Emphysematous condition of the  
organ.