AN INAUGURAL DISSERTATION ON

Asthma

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BY

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OF

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Asthma

This affection is familiar to almost every individual, and is generally known by the name of asthma, though in some sections of the country it is called Phthisic. The term is usually applied to an oppressed respiration or dyspnea occurring in irregular paroxysms. The disease resembles, in this respect, the bronchial irritation, which results from a sudden cold, or from any other cause capable of setting up an irritation in the bronchial mucous membrane, accompanied by a spasm, or a very similar symptom may result from bronchial congestion. In fact, the essential characteristic of asthma is very well exhibited in such an attack, to which, no doubt, asthmatic patients, if closely interrogated, would refer the
first appearances of the peculiar symptoms of this affection. I believe it is a
Considered point that the pulmonary air
tubes are largely supplied throughout
the whole extent with nerve and
muscular fibers, which contribute an
important part to the functions of
respiration. It is not fully determined,
I believe, to what extent this peculiar
organization of the bronchial mucous
membrane, influences the respiratory
action. But, I believe agreed that
a morbid sensibility of this structure
produces affections of the organ of
respiration characterized by peculiar
nervous symptoms and often accompanied
with unmistakable evidences of spasmodic
action, such is the character of one
modification of Croup, of Whooping Cough and also of the disease under Consideration. That this is especially true of the latter appear from the fact that symptoms of inflammatory action are seldom developed to an extent sufficient to account for the existing obstruction, and also from the fact that the difficulty often comes on so suddenly as to preclude the development of inflammatory action and even of Congestion, and it is not readily explained in any other way than by supposing a Spasmodic action in the mucous membrane of the bronchial tubes. There can be no doubt however that most cases of bronchial inflammation and Congestion are accompanied by more or less Spasmodic action in the Muscular fibres of the mucous surface.
But those affections are generally more gradual in their approach and consequently the attendant spasmodic action is less marked and severe. While the general constitutional symptoms are sufficiently diagnostic. It is, therefore, only those cases of spasm of the bronchial tubes, in which few or any constitutional symptoms are present and inflammatory or congestive action especially, is absent that should be designated as asthmatic. We cannot however exclude in this explanation a grade of local irritation, which may in some and persistent cases develop a true state of inflammatory action thus changing the character of the disease. I have little doubt that cases do frequently occur of purely a nervous character, in which mor
The associated irritating cause to stimulate affection is wanting. Thus those cases occurring in temperament of a highly nervous character produced suddenly, without a moment's forewarning by a peculiar color, the smell of flowers, etc., those persons where there is not a proper constitution of fire, irritation of the stomach, sudden mental motions, and other influences operating powerfully on the nervous system, one of this character, and it can scarcely be doubted if the true condition were determined, they would present far or no evidences of irritation of.

The characteristic symptoms of a paroxysm of asthma are however, frequently prolonged for some days by evidences sufficiently distinct to indicate it.
asthmatic subject the approach of an attack, though in other cases the paroxysm is either so insidious or sudden as to take him unawares, coming on frequently in the night, and as suddenly as an attack of Spasmodic Croup. The individual start up from his sleep with a sense of constriction in the lungs, amounting to a feeling of suffocation, and rushes to a window for fresh air as for life. No dose will entirely relieve the difficulty as an oppressive and whistling effort at inspiration, often heard at a considerable distance, continues for hours, accompanied by a sensible contraction of the chest, and a remarkable hollow in the epigastrium produced by the elevation of the diaphragm.
In this condition, it is no unusual occurrence for individuals to sit all night at an open window or, if that is too cold, in a room fully ventilated by having doors and windows wide open, and without the least complaint of chilliness or subsequent inconveniences to health. While those around will perhaps suffer intensely from the cold, and incur great danger of inflammatory attacks, the appearance of the patient are often most distressing. The countenance being purple and haggard, and the surface drenched with a cold perspiration while the capillary circulation in the extremities and over the body, and the weary and laboured effort of the organs of respiration, clearly point to an
insufficient supply of atmospheric air to answer the demand of the system. The effort to cough is imperfect from the interruption of the act of inhalation. While the effort to talk is little more successful. The pulse is generally irregular. Small and frequent, with occasional attacks of palpitation of the heart. Sometimes however the pulse is full and regular, or slower than natural. The urine is generally quite pale and Copious but as the disease declines diminishes in quantity becomes high colored, and upon cooling deposits a sediment. The tongue will mostly be found Coated. And the bowels Costive. Though it is not unusual for a diorama to set in, as the fever subsides.
The respiration becomes more full and deep approach, and a glairy mucous
expectoration takes place giving to the disease the character of humid asthma,
while in other instances the sputum declines without expectoration, in which case it is
by some called the dry asthma.
These constitute the most leading symptoms of a paroxysm of asthma. The return
however of the paroxysms, varies greatly in different cases. In some occurring not
often than once a year, or longer.
While in others they return upon very
insensible change in the state of the weather.
They assume a distinct periodical character
and return regularly every two, four,
six, or eight weeks. and some times
more often and increase in violence till
more or less difficulty of respiration exists all the time, as these attacks subside. Patients complain of great exhaustion with some feelings of constriction in the lungs and soreness of the muscles upon any exertion. Symptoms of indigestion frequently precede a paroxysm and not unfrequently follow it decline. A sense of fullness and weight in the epigastrium is often complained of after eating, and is followed by gaseous eructations. A peculiarity often attendant upon this decline is a tendency to distinct periodical recurrences every night, subsiding mainly through the day, for a walk or longer, which clearly gives the morbid character of the attack.

I shall now pass to a few physical signs.
and then to some of the leading causes of the disease. The true condition of the lungs in asthma is very shown by a physical examination. Percussion in the uncomplicated case will generally be found nearly as resonant over the entire chest as in health. While the usual sound afforded by auscultation will be greatly obscured, even during the most violent effort at respiration, only a faint and indistinct respiratory murmur will he found, and this a whistling or sibilant sound. will be heard, but as the spasm subsides, and air is more freely admitted into the lungs a more natural respiratory murmur will be recognized, and if much pronunciation takes place, more or less of the moist rales will be heard. These sounds however appear to change as the spasm
of bronchial asthma is more or less severe. The cases which have come under my personal observation have generally intensified and increased inspiratory sounds, often exhibiting the distinct whistling sound which is heard on inspiration as the decrescendo.

I believe it is conceded by the profession that there may be an acquired or hereditary predisposition to asthmatic affections. But what peculiarity of constitution or physical organization is necessary to this susceptibility thus admitted generally. It must be acknowledged it is not explained or fully understood. The most that can be said with any reasonable show of truth is that persons with narrow or.
Contrasted chests, and with great nervous susceptibility of the lungs, are more liable to attacks of the kind than others differently formed and constituted. These facts seems to be pretty well determined. Thus the form of the chest refers to is almost always associated with this disease, and more especially in hereditary cases. Moreover persons affected with asthma are also very liable to nervous affections, such as rheumatism, gout, and neurasthenic diseases. Few cases of the disease will be found, in which more or less tending in the roots of the spinal cord will not be detected by careful examination. It is said that excess in sexual indulgence predisposes to an attack of the disease also induces mental affections or strong
Spleens, contracted, and severe illness—while among the exciting causes, those connected with disarrangement of the stomach are the most common. Intimate in the connection between the condition of the stomach and paroxysm of this disease that there are but few of the purely uncomplicated cases which will not escape the periodical recurrence, to which sickly cases are particularly liable. By strict care and attention in diet and drinks, another sickly common exciting cause is atmospheric change. It occurs more frequently in the more northern and colder regions. Yet it is very common during the warm, damp and changeable seasons.
in other regions it is often produced when a predisposition exists by a sudden exposure when the skin is exposed by perspiration, or by exposure after taking a warm bath. It has also been excited by sudden and unexpected intelligence. Some persons who are subject to this disease cannot endure the odor of tobacco and some particular plants, or smoke of tobacco.

There seems to be a peculiar motion in hay when stirred that is very liable to produce an attack of asthma in those predisposed to it. It is said also to be produced by the suppression of habitual discharge and the sudden reception of cutaneous eruptions. From the continuous sympathy existing between
The skin and mucous membrane,
It is said that this affection cannot
be said to be peculiar to any period
of life as cases have been observed
in the young and old as well as
the middle age; I believe most
frequently in the latter. When
occurring in children they rarely
fail to out grow it. Instances of
the like have occurred in my own
experience. Nor is it peculiar to
either sex but from more frequent
exposure to its exciting cause and
favoring cause it is most frequently
met with in males.

Prognosis

Uncomplicated asthmatic affections in
healthy constitutions should I think
unquestionably be cured, while those cases connected with more serious disease of the lungs, heart, or other important organs, can scarcely present any reasonable prospect of much permanent relief in ordinary cases. However, whilst the symptoms recur and subside again, there is a fair chance for beneficial effect from a judicious course of medication, even if it cannot be entirely cured as before remarked. Cases occurring in children, which are quite common, may be considered susceptible of ultimate and perfect cure, while aged persons, especially with somewhat
Broken Constitutions can only expect to be relieved and the attacks depend in frequency by an appropriate Course of treatment and dieties. Our prognosis may therefore be said to depend upon the circumstances of each Case.

Treatment: In the treatment of asthma, there is two prominent indications to follow; one to relax the spasm, and the other to correct the predisposing cause. The former is presented in the paroxysm, the latter in the interval.

The symptoms of asthmatic paroxysms strongly suggest that of congestion and inflammation of the lungs. That blindness is apt to suggest itself to the mind as a

Remedy.
Should the disease be associated with hoarseness and a strong excited pulse. This remedy may be employed with propriety, but when a contrary state exists, where there is congestion and a feeble pulse, this remedy should be avoided as an injurious remedy. One of the most effectual remedies in producing relaxation, is the use of emetic substances, and this may be given. So as to vomit or nauseate to a considerable degree. Speca is much employed as emetics or nauseants.

Lobelia specification has great reputation, and in some instances being effectual as such it has proven to be in my hands, better emetic and squill enjoys its share of reputation as a remedied with many; Cholericu is recommended by some.
being applicable in gouty Cases. Antispasmodics are often useful in purely Spasmodic Cases—among which are Sulphuric Ether, akasofidic, and mandragora among the most effectual and they are often useful associated with one of the salts of Morphia. and more especially adapted to Hysterical Cases. Strong Coffee is employed. and often serviceable in doses of a Cupfull taken every twenty or thirty minutes.

Certain narcotics are beneficially employed when Asthma is not complicated with Hypertrophy of the Heart or a Tendency to Central Congestion. To counteract its use by making the Brain the Centre of Irritation and
Consequently an afflux of blood. 

Stramonium enjoys a high reputation as a remedy and is employed almost exclusively by smoking the dried leaves or tobacco. The relief obtained from its use is great. But should be abandoned as soon as it produces dizziness or nausea. Chloroform is said to be a good remedy by inhalation but cure should be used in its use as it produces very depressing effects. Besides the three classes of medicine, mention may be made of many other remedies. Have been used with more or less success. The application of electricity or electro-galvanism has occasionally arrested it. The same may be said of cold water dashed over the shoulders.
in the quantity of a pail full. The simultaneous use of cold drinks and potassium have been recommended. Rubapec to the chest sometimes afford relief. In cases attended with spinal tenderness, cups which should be applied over the tender vertebra and followed by blisters or tarteremic tincture. The apartment should be well ventilated. all articles calculated to disturb restrain the movements of the chest. Should be removed. In the intervals our efforts, should be to remove the motive tendency. attention should be directed particularly to the state of the stomach and bowels. Dyspeptic symptoms require the use
of antacids, carminatives, and tonics. Constipation, laxatives.
arranged hepatic function. The mercurial alterations. In the female
the menstrual function should be kept in order.
Anaemia and general debility must be counteracted by tonics and
suitable regimen. The diet should be easy of digestion and nutritious.
yet not stimulating. Much caution should be observed not to overload the
stomach. Alcoholic drinks as well as the habitual use of coffee and tea
should be forbidden. Exercise is highly useful especially in hot
wet and equable climate. Neither
very moist nor very dry as the most
favorable.
Traveling sometimes an advantage.
A change of scenery so that a
new set of impressions may be
made on the nervous system a
long voyage sometimes will offer
some hope of permanent cure
should there be no organic disease
existing.

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