Asthma

with special reference to the treatment
by the subcutaneous injection of Atropia

by

Charles Alfred Coleman

B.A., M.B., C.M.
The term asthma is applied by many writers to every case of difficult breathing, but I think it should be confined to cases of difficult breathing that have peculiar symptoms depending upon a peculiar circumstance.

Asthma is not only a common complaint but one causing the most intense suffering, with the features expressive of great agony, the patient being unable to speak or perhaps even to make a sign.
The attacks generally come on in the night time, or early morning, but may occur during the day. At whatever they do come on, it is for the most part suddenly with a feeling of tightness, a structure across the chest, with an impediment to inspiration. During a paroxysm the chest becomes distended and pressed, the head thrown back, between the elevated shoulders, the mouth a little opened with a gasping movement, the eyes are wide open, sometimes
strained, turgid, suffused; his face pallid, sometimes shifting blue. Perspiration generally abundant. During the attack, the heat of the body falls, the extremities becoming cold, at the same time the perspiration may be profuse. The pulse often continues in its natural state, but may be small, and occasionally so feebly that it can hardly be felt. The difficulty of breathing goes on for some time increasing and both inspiration and expiration
are performed stridely with a whistling noise. These symptoms often continue for many hours although the time it lasts varies greatly; in an hour, or two the severity of the paroxysms may lessen so that it will entirely disappear. The patient experiences a sense of great relief. Sometimes, the attacks come on quickly, and as quickly subside, the whole thing being over in half an hour. The patient being apparently as well as ever. Commonly a remission takes place by degrees, the breathing becomes less laboured, and the patient
May be able to speak, and cough. If the cough brings up any expectoration the remission becomes at once considerable, and is the harbinger of relief.

The periodicity of the attacks may be most marked, may occur regularly at intervals of a day, a week, a month, or a year.

A case is recorded of an Austrian boy who for years had an attack every Sunday morning, every other day of the week he was perfectly free from it. A suspicion arose that he was shamming in order to escape school after a long time the real cause...
bronchitis occurs, it brings on an attack of asthma with it. Frequently the Camses have nothing whatever to do with one another that which produces the disease but producing the paroxysm and vice versa. Thus measles may have laid the foundation of the disease, but it's not occur again to produce the paroxysm, or an irritating powder or Specacuana in the inspired air may produce the paroxysm, but it could not produce the Asthmatic tendency.

The Camses may be divided into those which are applied
Is the air-tubes themselves affecting them primarily and those which are applied to some remote part, and affect the air-tubes secondarily, these latter affect the bronchial tubes through the nervous system.

Those cases which affect the bronchial tubes primarily may be due to an irritable condition of the bronchial mucous membrane, or to things inhaled such as fog, or smoke, or fumes of a lucifer match, the effluvium of hay... Mucoceratia has the power of bringing on attacks with some individuals.
certain kinds of air may act as 
exciting cause, for instance 
a man may be perfectly well 
so long as he remains in town 
but as soon as he goes into the 
country suffers from an attack 
of asthma. Animal, vegetable 
emanations often bring on an 
attack, especially animal. Cats 
and Rats seem to be the most 
common, but instances are heard 
where the presence of horses and 
would bring on an attack. 
Whatever causes the excitation 
or excitement brings on an 
attack, probably by containing the
The respiratory organs, and causing pulmonary congestion. Asthma is very commonly associated with bronchitis or emphysema. Cardiac disease by causing pulmonary congestion may give rise to it. That one of gastric distention causes is probably due to reflex irritation. Dr. Hyrtl stated it was his opinion that it generally depended upon an "offending condition of the nose" brought about by the introduction of deleterious matter into the circulation during respiration. Various causes of irritation may induce asthma, e.g., marine decom-
cold & hardening hardened faces in the region. Occasionally it is central in its origin as when it accompanies distinct excitement or hysteria. Irritation of the Pneumogastric nerves in their course may be the cause.

Dr. Berkhart in regard to the habits of asthma considers it to be a symptom attending all diseases of the lungs in which the pulmonary tissue is deficient in elasticity. In consequence of this deficiency in elasticity the force of expiration is greatly reduced, and obstacles to the intercostal
Gases are overcome only by prolonged and unusual efforts. Such obstacles as interference of the mucous membrane causing occlusion of the bronchial tubes, from atmospheric influences and irritation by foreign bodies. Elevation of the mucous membrane followed by the production of thick fibrinous exudate. Compression of the bronchial tubes. Interstitial edema. Embolectomy of the pulmonary artery.

Asthma is a disorder affecting both sexes, but men are more liable than women. During no doubt to men being more frequently exposed to the exciting causes.
It may occur at any time from infancy to old age. A large number of cases commence within the first ten years of life, and increase in frequency from twenty to fifty. The physical signs during a paroxysm show that there is constriction of the bronchial tubes and interference of the passage of air. The lungs are inflated, the intercostal spaces, the epigastrium, and epigastrum are depressed.
The expansive movements are deficient. The percussion note gives a resonant sound. On auscultation the breath sounds are feeble, or may be altogether absent. Where the tubes are contracted, in other parts pneumitic sounds may be heard. Dry asthma may be heard generally over the chest. The auscultatory sounds are chiefly limited in extent, and liable to change their place rapidly.
Treatment. In considering the treatment of asthma we must divide it into two heads. Publick and Radical, so that which is to be employed during the paroxysm, and that during the interval. The remedies recommended for asthma are extremely numerous. Suppose they be no other complaint in which so many drugs have been employed, and as the old adage. What one man treats, is another man's poison so with the treatment.
Of this complaint, as a remedy, which succeed well with one person, may utterly fail in another. A patient who has suffered long from asthma, can generally tell you what suits him best. I shall now consider the different methods of treatment in detail, confining myself especially to those in which experience in a large number of cases have proved most beneficial.

4. During the Paroxysm.
In referring to the symptoms described, that immediate relief was obtained as soon as the patient breathed.
Therefore our object is to promote expectoration, or to remove any benign exciting cause, thus a loaded stomach will require an enema, a loaded rectum an enema etc.

The position of the patient should be studied, the sitting position with the shoulders well raised seems to be the best.

The remedies used belong to the class of depressants, sedatives, antispasmodics, or stimulants. When the exciting cause has been removed we must relax the bronchial spasm by sedatives.
or depressants. Those most commonly employed are ammonium or baking soda. The latter is more beneficial when it acts as a depressant. The dried leaves of ammonium broken up, steeped in a pipe or cigarette, act like a charm with some.

Strong coffee, the French roo, is also an excellent remedy. This should be taken on an empty stomach, or otherwise it is apt to do harm by interfering with the process of digestion.

Inhalations are also valuable, such as chloroform and ether. Inhalers of these are a few drops of chloroform placed on a handkerchief.
and inhaled has given marked relief in some, while in others no apparent benefit was derived. External applications are also largely used, as liniments, ice to the spine, liniments &c. These remedies are certainly beneficial in many cases, giving temporary relief, but of all the drugs used for asthma none have proved so satisfactory in my practice, as the subcutaneous injection of Adriza.

The preparation I use is prepared by Savory & Moore, made in the
form of vices. The great advantage of this preparation is, not only the convenient form in which it is prepared, but it will keep for almost any length of time, whereas the solution spoils on keeping.

On the first approach of the paroxysm, I inject 1/20th gr. of the Sulphate of Atropia. I am not aware that this method of treatment has been generally adopted for Rhinia, but I can faithfully say that no other drug has ever proved so beneficial in curtailling short attacks, not only in giving temporary relief, but as will be seen in the
Cases recorded in wording of future attacks.

J. W. aged 35, has been afflicted for many years with a very distressing Asthma, from the family history the complaint appears to be hereditary, no remedies gave any permanent relief, nor did change of climate procure any alleviation of symptoms. He has taken various lines under the direction of physicians, all kinds of drugs, and finally almost gave up in despair. For a considerable time before he has never been...
able to lie down in his bed on account of a sense of suffocation which he always experience in a horizontal posture, but is obliged to be supported half-sitting by pillows and even then is discommoded to such a degree by incessant cough so violent as often to induce fainting that he can seldom sleep before two or three in the morning, and his chambers are often interrupted. Being a personal friend of mine, he asked me if I could not prescribe something to relieve him, but once communicated with his Medical Attendant and suggested he should try the subcutaneous injection of /1/20th /82/
Of the Saltpetre of Althaea, he did so according to my directions, and the result was to use his own word, marvellous. He wrote that I, in enjoyed round and uninterrupted sleep all night, which he had not done for several years. I have heard from my friend since, he says his health has much improved, the cough has abated, and his nights are good.

In this case, 1/20th grain was injected for four nights in succession as the attacks threatened, although he had not an actual paroxysm.

On the 5th, 6th, and 7th night, no
injection was necessary but on the 8th night. A patient having taken too much libbly through the day, "in the strength of his rapid recovery," he had an unusually severe attack, so that 180° pain was used. These weeks have elapsed since commencing this treatment. Since then there has been no relapse since the initial consequent no injection used.

Mrs. B. At 26 has been subject to spasmodic asthma for a long time which attacks her periodically sometimes once a week, sometimes oftener. These attacks usually begin with a wheezing, difficulty of breathing.
and pain in the side, which increase until a great sense of suffocation comes on, accompanied with spasms of the respiratory muscles, violent pain round the waist, the face usually purple, feet, and hands and the rest of the body in a chronic perspiration, pulse quickened. These attacks commonly last about twenty-four hours, and generally enable to leave her bed for two or three days. Afterwards, the various changes in the weather seem to affect her, as she is always worse during the prevalence of East winds.
She has tried various remedies which have given temporary relief, but nothing has proved so valuable as a subcutaneous injection of atropia. In this case there was but slight displacement on employing 1/20th grain, so increased the dose to 1/10th grain, since then she has not had an attack. It is now six weeks since Mr. B. left for the Continent of the United States, he writes that she is enjoying good health, has had no return of the symptoms.

I could record other instances in which the atropia has proved equally successful, but I think these two cases which were
Unusually severe, will show that this treatment deserves further investigation. I regret that time will not allow me to go further in detail at present.

B. Treatment during the interval. This is very important especially in regard to the dietetic treatment. Most asthmatics are more, or less dyspeptic. Therefore it is necessary that the hour and meals should be so arranged that the process of digestion may be finished before retiring to rest. All article of diet difficult of digestion should
be avoided.

An Asthmatic's meals should be small in quantity, nutritious, and easy of digestion.

All exciting causes of the complaint must be avoided, the strength of the stomach's general system must be promoted by tonics, cold bathing, a regular mode of life &c., and to choose a climate opposite to that in which the paroxysms are produced.