

Wilcox (*Am. Journ. Med. Sc.*, cxiii., 1897, p. 538, 1897) has also carried out a number of clinical observations with different preparations of strophanthus. From his investigations he believes the tincture of strophanthus to be an active preparation, and as to its effects, as compared with digitalis, he believes it is more prompt, not cumulative, and exerts no influence upon the arterioles.

OPIUM IN VALVULAR DISEASE.

Work (*Med. Surg. Report*, Aug., 1897) strongly recommends the administration of opium or morphine in aortic incompetence, which by producing hyperæmia of the brain, combats the troublesome anæmia, and therefore works like cardiac tonics.

TREATMENT OF SEROUS PERICARDITIS.

Fränkel, in an interesting paper on the results of operative treatment in pericarditis, (*Verhand. d. 15 Congr. f. inn. Med., Wiesbaden*, xv. p. 492, 1897), describes the case of a girl aged ten suffering from rheumatic pericarditis with effusion, who was successfully treated by the resection of a small part of the fifth left rib close to the cartilage, with free opening to the pericardium. The author recommends such a method of proceeding in preference to aspiration seeing that the puncture may penetrate the heart wall or the pericardial vessels which may belong to the most important coronary branches or tributaries. Roberts deals with the same subject in an excellent paper on the "Surgical Treatment of Suppurative Pericarditis" (*Am. Journ. Med. Sc.*, 1897, cxiv., p. 642) and condemns puncture of the pericardium on account of its uncertainty and danger, seeing that the pleura on the one hand, or the heart wall on the other, may be injured. The one satisfactory method, according to Roberts, lies in exposure of the pericardium, incision, and drainage.

DISEASES OF THE LUNGS AND ORGANS OF RESPIRATION.

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IN passing in review the various subjects of interest which have arisen during the year in connection with the Treatment of Diseases of the Lungs and Organs of Respiration, it will be convenient to employ the following order:—

A.—Diseases in connection with the bronchial tubes.

(a) Bronchitis.

(b) Asthma.

B.—Diseases of the lung tissue.

(a) Pneumonia.

(b) Tuberculosis.

(c) Actinomycosis.

A.—DISEASES IN CONNECTION WITH THE BRONCHIAL TUBES.

(a) **Bronchitis.**

Although there is not much that is new in the treatment of bronchitis to be recorded, the paper of Prof. Leech (*Practitioner*, May, 1898), upon the treatment of bronchitis by drugs, gives us some very practical hints, not so much as to the use of new drugs, as concerning the right dosage and means of administration of those with which we are all familiar. The general deduction which may be made from his paper is that most of the drugs are given in too small doses. Thus, in acute bronchitis, in the ordinary saline mixture, which contains ammonium acetate, spirit of nitrous ether and ipecacuanha or antimony, the first-named drug, ammonium acetate, is given in drachm or in drachm-and-a-half doses every four hours. This is not sufficient to have much effect, and Leech suggests that the dose should begin with three drachms which should be increased up to six drachms if the skin does not act freely. Again, spirit. ætheris nitrosi may act in half-drachm doses, but when given in drachm to two-drachm doses, it is a very

distinct diaphoretic. This drug, mixed with water, rapidly decomposes, but when acetate ammonium is present this decomposition is slower. In young children, Leech says antipyrin does more good than acetate ammonium, and adds that 5-gr. doses to a young child five or six years old, induces profuse perspiration and marked improvement. Contrasting antimony and ipecacuanha, he believes that antimony in doses of $\frac{1}{20}$ gr. (of tartrate?) is of most service where there are small basic moist sounds and the breathing is oppressed, whilst where there are small rhonchi all over the chest with irritable cough, ipecacuanha is most useful. As regards the use of ammonium carbonate, he thinks that the dose to be of much service, if wanted to produce its proper physiological effect, should be increased from 3 gr. to 5 gr. every four hours, the usual amount given, 5 to 10 gr. every hour or so. It is best not to give it with the usual drugs with which it is generally combined, such as squills and senega. These should not be administered often, whereas ammonium carbonate should be so given. The plan suggested is to give the ammonium carbonate in milk. If 60 gr. be dissolved in 6 oz. of water, one tablespoonful can be given every hour in the milk which is taken by the patient. It is not unpleasant. It should be remembered that if this drug is given in a mixture containing strychnine, it is apt to throw down the latter. Senega, which appears to be an expectorant of some value, is very irritating to the stomach and should be given at intervals of not less than four hours. Squills is both an expectorant and a cardiac tonic; it is useful in both acute and chronic bronchitis, but when there is evidence of accumulation in the bronchial tubes ipecacuanha in large doses is of more use. Leech mentions a case in which he ordered ipecacuanha wine in drachm doses every four hours, and on the next day he found the patient much relieved and charmed with the medicine, but discovered that by mistake the wine had been given in ounce doses and produced some sickness, but not much. Leech thinks that oxygen inhalation, to be of any service, should be administered much earlier than it is the custom to give it. If given early it may prevent the advent of cyanosis. It is not, of course, curative.

(b) **Asthma.**

A very interesting discussion upon the treatment of asthma took place at the Medical Society at the end of March, 1898, on the occasion of the reading of a paper by Kingscote on the vagus origin of asthma. Beginning by premising that asthma is generally to be connected with irritation of one or more branches of the vagi, which can be traced in the majority of cases (whether from the origin in the bulb, from Meckel's ganglion, from the

superior laryngeals, from ear mischief, through Arnold's nerve, through the pharyngeals, through the recurrent laryngeals, or through pressure on the vagi trunks, or through irritation of the heart, lungs, stomach, liver, spleen, or abdominal system), the author separated a class of cases the origin of which cannot so easily be discovered. He had found that such obscure cases usually recover, and later, that the cases which recover invariably have a deep-seated dilatation of the heart, and that improvement in the asthma accompanies improvement in the cardiac condition. From this he concluded that a dilated heart may set up asthma by its pressure upon the vagus, backwards against the spine. The treatment which under such circumstances seemed to be indicated, and which was tried with good effect, was a modification of the "Schott" method and the inhalation of oxygen.

The discussion which followed on the reading of the paper was valuable. It indicated that in the opinion of those with great experience of asthma, the disease may be recovered from, and that it may be improved in many cases by the administration of iodide of potassium—such as Theodore Williams's experience; and secondly that there are two distinct forms of the affection, namely, true spasmodic asthma, which is benefited by citrate of caffeine and fuming inhalations, and cardiac asthma, in which ordinary cardiac drugs do good for a time and which later benefit by oxygen inhalations, whereas fuming antispasmodics do no good—such were Thorowgood's views. The idea of Kingscote that iodide of potassium acts in this affection by its influence on the blood pressure is not generally received.

As regards the contention of Maguire that the muscular spasm of the bronchioles in asthma is a pure assumption, it should be remembered that sudden diminution of the calibre of the tubes, producing interference with the entrance and exit of air is scarcely conceivable except from some degree of muscular contraction. In most cases, no doubt, there is evidence of congestion or of incipient inflammation of the mucous membrane going with the muscular spasm.

At the meeting of the Climatological Association of America, held in August and September, B. Robinson, of New York, gave some clinical notes upon asthma. He had found so-called nervous asthma of rare occurrence and considered that the supposed functional cases will, on further investigation, prove to have some definite pathological substratum. For example, conditions of the blood are often overlooked. He especially considered that malarial toxæmia is frequently present and is not recognised.

For the recognition of this condition he recommended that if there be a sudden chill followed by rise of temperature and sweating, at the time of the chill and previous to the giving of quinine, the blood should be examined. The plasmodium malariae would be discovered. For this kind of case the author strongly advised the administration of Fowler's solution till its physiological effect is produced. If the bowels are constipated and the liver inactive, Warburg's extract should be given in 5-gr. doses three to four times a day; if anæmia be present, quinine, iron and arsenic. Antispasmodic remedies are no doubt sometimes required as well in severe attacks, for example the smoking of cigarettes d'Espece or of datura tatula or of nitre paper. In extreme conditions of spasm, chloroform inhalations or hypodermics of morphia, or atropine become necessary. Gout and rheumatism were also sometimes connected with the nervous irritability underlying an asthmatic attack. When the attack is connected with gastric catarrh brought on by errors of diet or alcoholic excess, frequently lavage of the stomach and regulated diet bring relief. In asthma connected with bronchitis when the secretion is slight, efforts should be made to increase it; hence small doses of ipecacuanha, tartar emetic, chloride of ammonium, iodide of potassium or of grindelia robusta may be useful. When the secretion is abundant in the bronchial catarrh, belladonna or atropine may be used in small or moderate doses with the above-named drugs or with a little camphor or quinine in capsule or tablet form. When emphysema and bronchitis are clearly defined, antispasmodic cigarettes, inhalation of oxygen, Hoffman's anodyne, alcohol, hot coffee, ether, or chloroform may be tried. When in addition there is cardiac distension, nitroglycerine or the nitrites, salicylate of caffeine, either by the mouth or injection subcutaneously may be employed. Again, venesection or leeches, or wet cups to the chest or epigastrium, afford more or less lasting relief. Speaking very generally as to climatic treatment, the speaker was inclined to believe that the climatic conditions suitable for subacute or chronic bronchitis were also those desirable for bronchitis when complicated with asthma.

B.—DISEASES OF THE LUNG TISSUE.

(a) ACUTE PNEUMONIA.

The question of the treatment of acute pneumonia remains one about which much difference of opinion prevails. Remedies recommended at one time appear to have little effect for good at another; active treatment, palliative treatment, and no treatment

each has its day, and the mortality of the disease varies with the year or with the season.

It is now, however, generally thought that acute pneumonia is a specific disease, and that the micro-organism which produces it is the pneumococcus of Friedländer. In order to account for a difference in type which the disease presents, it has been suggested that the infection may be a mixed one, and that other microbes may enter into the production of the disease from time to time. This suggestion is based upon the fact that acute pneumonia occurs in connection with influenza, erysipelas, and the like, in which special microbes are known to be the exciting cause. As the disease is believed to be bacterial, most hope for cutting short the affection is placed nowadays in the production of an antitoxin, and experiments with antitoxic sera are increasing in number. Some of these experiments will be mentioned, but if the suggestion of a mixed infection, which has been discussed by Moore (*Brit. Med. Journ.*, Feb. 15, 1898), is a correct one, it will be seen that the production of antitoxin suitable for different cases becomes a complicated one.

The use of antipneumococcal serum.

At the Italian Medical Congress, Massalongo and Franchini reported some results obtained by them on treating cases of grave and acute pneumonia with Prof. Pane's serum. Ten cases were described. All of them were advanced and occurred in old people, and those who through poverty, fatigue, and vicious habits were nearly all alcoholics, with weak hearts, nephritis and arterio-sclerosis. Contrasting the results of this method of treatment with those obtained by other means in similar cases, the authors concluded (1) that the results were better and (2) that the serum had a direct action on the evolution of the pneumococcal process. In the discussion as to the value of antitoxins which followed the reading of the paper, a good deal of difference of opinion was shown to exist as to whether anything but an early injection was of any use, Bozzolo maintaining that unless used early they were of little use, whereas De Renzi considered that a later injection, even to the fourth or fifth day, if given in adequate amount and intravenously, might produce good effects.

From other directions opinions favourable to the trial of this serum have appeared, viz. from Ughetti, of Catania, and from Cantieri, of Siena, and from many others who have tried it. The serum is prepared at the Instituto Siero-terapeutico at Naples.

De Renzi (*Gaz. degli Osped. e delle Clin.*, Feb. 13, 1898, quoted from *Brit. Med. Journ.*) has used the serum with excellent results during the past three years. He has used it in thirty-two cases, and in the earlier years only in the severest cases; in