

gastro-intestinal or other febrile disturbance, with no pulmonary complication, a respiration rate of from 60 to 80 a minute, which can only be due to an irritation of the respiratory centre or, as suggested by Rachford, an attempt at heat dissipation through a polypnoeic centre. Both of the above contradict the dictum, that disturbance of the pulse respiration ratio means pneumonia.

Whether bronchial asthma be due to muscular spasm or vaso-motor turgescence, all are agreed that "it is a neurotic affection, that the attack may be excited by irritation of the mucosa in any part of the respiratory tract, and indirectly by reflex influences from stomach, intestines or genital organs" (Osler).

Hare, in the *New York Med. Jour.* of April 7th, 1906, argues strongly and at length in favor of the vascular theory.

Morrison, in the *Br. Med. Jour.*, Nov. 25, 1905, just as enthusiastically supports the theory of muscular spasm, of bronchioles and muscles of inspiration, with some tumefaction.

The great resemblance in many of their features between hay-fever and asthma, as pointed out by Sir Andrew Clark, is generally recognized, and the two diseases often alternate.

Accepting the neurotic origin of these diseases with their vaso-motor features, leads up to the consideration of other conditions, similar in character and similar in origin. They may be stated briefly as edema and turgescence of the mucosa of the respiratory passages, of reflex origin, due to direct or indirect irritation of the vaso-motor centre.

Time will not permit of the recitation of cases in detail, but permit me to cite in a summary way a few cases illustrative of these conditions.

*Case I.*—Urticaria, cutaneous, buccal, laryngeal and bronchial, from use of quinine.

E. R., aged 28. A teacher of nervous temperament, subject to attacks of migraine.

Having forgotten her idiosyncrasy, prescribed in the early morning sulphate of quinine in 2 gr. doses. Shortly after taking the first capsule, complained of itching of the skin, fullness of the throat, and some dyspnea, which soon became alarming to herself and to her friends. An hour later I found her decidedly cyanosed with marked dyspnea, hoarseness and some cough; the irritation of the skin was abating, but the rash was still evident on arms and chest; the fauces were red and turgid, and throughout the lungs were abundant sibilant and fine mucous rales.

The distress soon began to subside, but the cough continued with free expectoration of frothy mucus for some hours, disappearing entirely by evening.

*Case II.*—Faucal and laryngeal urticaria from eating strawberries. D. A. McD., a clergyman, aged 50, having had a similar