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CHICAGO

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TREATMENT OF INFLUENZA BY MEANS OTHER THAN VACCINES AND SERUMS *

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This brief paper will be essentially an expression of personal opinion as to the treatment of influenza by means other than serums or vaccines. This opinion is based on an experience with the disease in the epidemic of 1889 and 1890 and the years immediately following, as well as in the epidemic through which we have just passed. Experiences of other physicians, as revealed by personal communication and by observation of their practice, are also laid under contribution. Many articles on the subject have been read, but no claim is made that the enormous mass of literature that has resulted from the visitations of this serious disease has been carefully studied or thoroughly digested. The task would be both discouraging and unprofitable, because so many of these articles are the result of superficial observation and limited experience; so many ignore the fact of the self-limitation of the infection and its natural course; so many conclusions are crude, and so many are reached by a mental process in which an optimistic credulity takes the place of the more desirable scientific skepticism.

Perhaps, however, the task would not be wholly unprofitable if it were to let us know more nearly where the profession stands today in the matter of drug and other treatment of influenza, and if it were to serve forcibly to bring home the lesson that as yet we have no specific treatment for the disease, no one

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or two drugs on which all physicians are agreed as to their preeminent value in prophylactic or active therapy.

No drug is known to prevent the occurrence of influenza. Many have been tried, but a review of the reports made by optimistic clinicians is far from convincing. A drug of this category is quinin, warmly advocated, though without adequate proof, by many Italian physicians, but by others of the same country regarded as without value.

Segregation of those who are ill and the prohibiting of public gatherings must lessen the number of contact infections. Perhaps it would be more nearly correct to state that such measures lessen the rapidity of the spread of the disease by lessening the concentration of exposures. The impression one gets from a consideration of the incidence of influenza as it has occurred in the camps and larger cities is that in spite of all practicable quarantine measures the epidemic goes through the populace sparing the immunes, but affecting the susceptibles, approximately 30 per cent., of the total number. Prohibition of public gatherings seems to spread the disease more thinly over a longer space of time. It may act also to postpone the occurrence until such time as the less virulent type is prevalent. By this diluent action fewer fatalities may result. Both these are desirable ends, and so these measures are to be encouraged.

Reports of clinical observations and experiments vary as to the value of the gauze masks. There can be no doubt that a properly constructed mask worn by the patient must lessen the danger of droplet infection of nurses, attendants and other nearby patients, and thus minimize the danger of carriage of the disease or of crossed infections. The masking of physicians and nurses acts in the same way, though not to the same degree. The suggestive effect of the mask, emphasizing care as to cleanliness, is not to be undervalued.

The faulty way in which masks are sometimes constructed, the carelessness with which they are worn and the use of soiled masks are productive of no good and, at times, cause harm. The mask properly used has probably come to stay, though its exact value is far from determined. And such a clinical experiment as that in which the attempt was made to transfer influenza by the swabbing of the throats of healthy individuals with the nasal and throat secretions of influenza patients, without resulting transference of the disease, goes far to shake one's faith in the mask as a preventive measure against influenza.

In order to be convinced of the fact that there is no generally accepted plan of treatment, it is only necessary to see cases in consultation with other physicians, or to read the abundant literature on this disease of the last six months, or to go back to the voluminous writings published after the epidemic of 1890 and the years immediately following. The utter lack of uniformity as to drugs recommended is the best proof that there is no one remedy of sovereign value. That this is the fact, not alone in the English speaking medical world, but in other lands as well, is revealed by a perusal of the medical supplement of the *Review of the Foreign Press* issued by the British General Staff, War Office. Take, for instance, the number for April, 1919, in which there are abstracts from recent French, Italian, German, Scandinavian and Swiss journals. A catalogue of the remedies advocated reads: intravenous injection of camphor oil, camphorated oil with guaiacol, intravenous use of mercuric chlorid, intravenous injections of hexamethylenamin, quinin in large doses, collargol, colloid gold, colloidal metals in combination with antistreptococcal serum, calcium chlorid, neo-arsphenamin, diphtheria antitoxin and tetanus antitoxin. Certainly some one has blundered in reaching conclusions.

There is, however, one feature of the treatment of influenza on which all agree, namely, the importance of early rest in bed and the continuance of such rest until fever, cough and other symptoms have for several days disappeared. It is a common experience for the patient who does not at once give up when attacked by the disease, or who leaves his bed early and attempts to go to work the moment he thinks he has the requisite strength, to suffer from a recurrence of symptoms, possibly to have pneumonia appear, or to be incapacitated on account of persistent cough, irritable heart or nervous and muscular weakness. A few days added to the period of rest would often save the patient from a protracted convalescence or prevent serious sequelae.

A sunlit room, plenty of fresh air and a light diet with a liberal amount of liquids should be allowed and enjoined. The bowels should be opened fully at the beginning of the illness and not allowed to become sluggish at any time.

One of the hardest things to do in the treatment of a serious, self-limited, infectious disease is to refrain from prescribing drugs merely because the diagnosis has been made. The self-restraint of the level-headed physician is likely to be swept aside by the thought of the possible grave consequences of the malady, and his accustomed good judgment is apt to be smothered in the semihysterical atmosphere of alarm that pervades the community during the visitations of the epidemic. He forgets that a large proportion of patients with influenza do not need a single dose of medicine. There should be no routine treatment according to which certain drugs are given at stated periods, whether or not there is a clear indication for their use. The treatment is really expectant, symptomatic and individualistic.

It was my lot to be in charge of the influenza isolation wards in the Presbyterian Hospital, Chicago,

during the recent epidemic. There were about 160 nurses, members of the hospital personnel and medical students from Rush Medical College who were patients. The disease was vicious and severe; pneumonia and other serious manifestations were common. Of the 160 patients, only one died, a nurse. So far as I could learn, there had been no prophylactic vaccination or use of serum in any case; no treatment of this kind was instituted in the hospital. There were no standing orders as to drugs. No acetylsalicylic acid, phenacetin, digitalis, codein, quinin, atropin or other remedy was to be prescribed as a routine. Rest in bed from the very beginning of the symptoms, and for several days after the cessation of the symptoms, was the standing order. Liquids were given freely. I have wondered whether if I had used some vaccine or serum or other supposed specific I might not now be eager to get into print with my record of only 0.6 per cent. mortality. Nay, I should have been in print long before this. I merely have the satisfaction of knowing that no lives were taken by drugs (I think I am free of the charge in the one fatal case with extensive pneumonia), and that cautious conservatism gave Nature a chance to work a cure. We trust we helped her in her healing work.

The remedy that seemed of greatest value was digitalis. Without waiting for alarming indications of failing heart to develop in the way of feeble tones, rapid action, arrhythmia or dilatation, digitalis was given by the mouth, hypodermically or intravenously in small or large doses as need arose. I am sure that by its intravenous use several patients were very materially benefited, and that in some instances dangerous or even fatal heart failure was averted. I never saw harm result from its careful use, except that occasionally it induced nausea when given in large or frequent doses, as it necessarily had to be. Next

to digitalis, the drug that seemed to me to be most helpful was opium—nearly always given as a hypodermic of morphin, or when the allaying of an annoying cough was the desired aim, in the form of heroin or codein. Pain, sleeplessness and severe cough have seemed clearly to indicate its use. The benefit from one sixth grain of morphin to the patient who, racked with cough and distressed by the pain of a pleurisy, has not slept for twenty-four hours, is too self-evident to need argument. There is too much fear of a hypodermic injection under these circumstances; fear both on the part of the physician and of the laity. Camphorated oil may be extremely helpful when there is a weak heart. In influenza in a patient who had been asthmatic and in whose chest there was much wheezing, I have seen good come from administering epinephrin. Hypodermoclysis or proctoclysis may be helpful. I think I saved one life by bleeding.

But I must be careful, or I shall lay myself open to the charge of having my pet drugs, or a treatment which I claim is curative. And to have favorite remedies which we talk about too much is to expose ourselves to the danger of believing in them more than is warranted by the facts. Even the quack comes to have a half-way belief in the curative powers of his methods. One ought not to be a nihilist as regards drugs in this disease; but no apology is needed for being a good deal of a skeptic as to the value of much of the therapy that is prevalent. Wholesale and indiscriminate drugging and the giving of huge doses is much too common. There should be a management of influenza as rational and simple as that of a developed case of typhoid fever, in which, today, in the hands of the intelligent physician and the enlightened public, drugs play a subordinate rôle. How much harm may be done by overdrugging no one can estimate. But the danger is real and not imaginary.

