

in connection with bradycardia, this case is by no means in that respect an isolated case. The great majority of the cases summarized by Prentiss also showed subnormal temperatures. With regard to etiology he did not wish in any way to insist upon the mechanical idea as an explanation, but in some cases it seems conceivable that such may be, not the sole cause, but one of the causes.

Dr. WESLEY MILLS said that the reason he had asked the question, relative to the conditions under which temperature, etc., were taken, was that there might be no misapprehension by Dr. Lafleur with regard to subnormal temperatures. With the help of some of his present and past students he had recently been conducting some investigations on that subject, and found that if one takes temperatures a good deal, and takes them very frequently during the day, and of a good many different people, he will be surprised how often he gets below 97° , and also the number of people who have temperatures in that region at certain hours in the day. We have what are apparently subnormal temperatures existing as the normal condition of certain individuals, and that these individuals are by no means rare.

As regards the pulse, nearly every year someone comes to him and reports, either in himself or some acquaintance, a condition of bradycardia, so that like subnormal temperatures slow pulse is not so rare a phenomena as it was once thought; and that, further, its presence in an individual is compatible and concomitant with apparently good health.

Dr. Lafleur seemed to think that in venturing his suggestion as to a possible explanation in his case, he was announcing a theory in direct opposition to his (Dr. Mills) views. He is not opposed to mechanical explanations as contributing factors. A few years ago mechanical explanations were the only ones; and it was as "sole causes" that he opposed them. In the present case, no doubt, the mechanical explanation is a link in the etiological chain, but it is only a link, and it only extends a certain length. Why should we rest content with the mechanical part of the explanation? A heart is a living thing composed of cells, which, while life is present, are continually subjected to a never ending and ever changing metabolism, and it is preposterous to explain the functioning of such an organ by hydraulics alone. Hydraulics may do for the larger arteries, but they are quite inadequate in the face of the complexity of the heart.

Blood pressure has to be taken into account in explaining the heart beat, as he has distinctly noticed, that in the fishes' heart, blood pressure had a great influence in the character of the beat. He referred to a case of a London physician, in whom the nervous system bore an

important and clear relation to the rapidity of the beat. This man, when working, found his pulse sink as low as forty. Then, of course, we must distinguish between these physiological and pathological cases, so that bradycardia may mean very much, and it may mean but very little. There is a point brought out by the researches of Doctors Adami and Roy relative to the nutrition of the heart through the coronary arteries, and to some newly discovered nerves which regulate this nutrition, which he (Dr. Mills) would like to hear discussed at some future time.

Dr. LAFLEUR in replying had only to say that he alluded to the mechanical explanation of the problem, not as any explanation of the work and results of Dr. Adami or his confrère, but solely with reference to those cases that had been reported lately, and which had been already mentioned. With regard to normal bradycardia, it is a phenomenon so well known that he did not think it worth mentioning; for instance, there is the oft spoken of case of Napoleon Bonaparte, the slowness of whose pulse has been a matter of historical comment. In relation to the effects of study on the pulse, from observations on his own pulse, he was inclined to think that close study has a certain effect in reducing the rapidity of the heart beat, and in his student days, at the trying times of approaching examinations, he especially noticed, were potent factors in bringing about such a phenomenon.

Remarks on a Recent Epidemic of Typhoid Fever in Montreal.—Dr. WYATT JOHNSON said that a good deal of attention has been attracted to the considerable number of cases of typhoid which have arisen during the last three months, among the customers of a well known milk dealer here. This epidemic, if it might be called such, is not very extensive, not very serious as regards the number of deaths, although the proportion of mortality is quite up to the average in typhoid (3 in 20); so that the loss of life has not been sufficient to attract very great attention from the public, and it might pass unnoticed, were it not that it has brought out very strikingly some defects of our present sanitary system and the *modus operandi* of our local health office. The more you investigate the case, the more it shows a lack of co-operation and a lack of intelligent investigation of these infectious diseases; and, of course, what applies to this particular outbreak would apply to the outbreak of any other infectious disease, more especially to cholera. We are informed by the greatest authorities that there is high probability of cholera this year becoming generally epidemic in America; and it behooves us, therefore, to be on the alert and see that no precaution is neglected which might spare us from the plague. Now, I think we are all agreed that the sanitary methods have