

the contrary, the attacks diminish and the coma ceases in a definite manner, the temperature lowers progressively and returns to the normal standard."

In June, 1875, M. Diendé\* published four new observations, two of which confirmed the opinions of Bourneville, while the others invalidated in part the proposition that the temperature was elevated in eclampsia, and incidentally invalidated the proposition that in the intervals it was maintained at a high degree, and slightly elevated at the time of the convulsion. In December last Herbart† published three additional cases; a single observation has been made by Richardson,‡ and two by myself, making in all twenty-seven cases. With the exception of the two cases before referred to, the observations confirm the conclusions deduced by Bourneville. Of these twenty-five cases, seven died. A single death occurred with a temperature as low as 102.4°; in the other six cases the highest elevations ranged from 104° to 109.5°. Among the recoveries the temperature rose in one case to 105.8°, and in another to 106°. Therefore the maximum of safety cannot be established; but in all the fatal cases the temperature remained elevated, and in every case of recovery it lessened. No death occurred with a temperature below 102.4°, and no recovery took place with a temperature above 106°. The thermometric cause was not uniform, because of the alterations produced by the effect of therapeutic agents.

These results present important indications in regard to the treatment and prognosis in cases of puerperal eclampsia. The value of remedies may be determined by the modifications of the temperature, and their inutility may be established by its progressive elevation. The fever, be it a factor of causation or a coincident phenomenon of the convulsive environment, is manifestly the element of danger. This inference is corroborated by the varying success of the different therapeutic agents which have from time to time been employed in the treatment, and which owe their efficacy to their antipyretic qualities, or rather to their power to abstract body-heat. Venesection, which at one time was regarded as the "sheet-anchor" of hope, and even now has many advocates, not only diminishes the mass of blood, lessens arterial tension, and relieves blood-pressure, but also produces rapid falling of the temperature, in the well as in the sick.

This effect may be transitory, and speedily followed by increased arterial tension and an elevation of temperature, but the fever-course of eclampsia exhibits marked depression after the abstraction of blood. In Richardson's case the temperature fell from 103° to 102° after venesection, but, the tenseness of the jugular veins and unconsciousness continuing, a second abstraction of blood, with the application of an iced collar to the neck, established convalescence. In Herbart's case the abstraction of twenty ounces of blood was followed by an imme-

diate fall of 1°, and in the five succeeding hours of 35°. The illustrations might be multiplied; and even in the fatal cases venesection, when employed, either stayed for a time the progressive elevation, or depressed the temperature to rise again.

Chloroform-narcosis lowers body-heat by diminishing the rapidity (Billroth) of metamorphosis, thus lessening the production of heat. Chloral hydrate lessens heart-action and lowers temperature. In the fever of eclampsia the effect of both of these agents is marked by the descent of the curve. Veratrum viride, so highly extolled by Hearn,\* depresses the temperature, slows the heart, lessens arterial tension, and diminishes the blood-pressure.†. Digitalis diminishes the activity of heat production. Aconite depresses the body-heat by its paralyzant action on the heart and organs of circulation (Bartholow.‡ Cold affusions, purgation, and nauseants lessen body-heat. In brief, the successful methods of treatment of puerperal convulsions illustrate the "principle of physiological antagonism" of therapeutic agents to the febrile state. I may add, the evacuation of the gravid womb, initiates physiological influence, diminishes the temperature. Nature indicates her resource in expediting the depletion of the uterus in very many cases of puerperal eclampsia, and it is a fact that in a majority of cases the convulsions cease or diminish in frequency and intensity, with a marked reduction of the temperature, immediately upon the completion of delivery.

I will advance a step further, and submit the proposition that the various methods of preventive treatment owe their efficacy to their effects upon the blood-mass and blood-vascular apparatus. As a rule, these are directed to the promotion of digestion, whereby the loss of albumen is replenished, and to the diminution of the hydræmia, by catharsis, diuresis, or diaphoresis. Heretofore the explanation of these excretory operations has rested mainly upon the theory of eliminating the excrementitious and toxic elements accumulated in the blood. Not less important are the simultaneous effects in lessening the mass of blood and restoring the relation of its constituents. The phenomena and consequences of loss of albumen, says Wagner, are disturbance of the endosmosis and exosmosis, insufficient formation of digestive fluids, altered nutrition and repair of tissues, and, especially, often albuminuria.—*Philadelphia Medical Times*.

#### THE NORMAL DIGESTION OF INFANTS.

An essay by Dr. WEGSCHEIDER of Berlin (*Centralblatt f. d. Med. Wissenschaft*, No. 3, 1876), based on the microscopical and chemical examination of the feces of number of healthy infants between two and three months old, whose diet consisted entirely of breast-milk, reveals some interesting facts with

\*Amer. Jour. Obst., vol. iv. p. 28.

† Bartholow, Amer. Clin. Lect., Seguin, vol. ii. p. 17.

‡ Whence it follows that the consumption of oxygen and the chemical interchanges between the blood and the tissues are diminished.

\* Inaugural Thesis.

† Inaugural Thesis.

‡ Obst. Jour. Great Britain and Ireland, vol. ii. p. 675.