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Observations on the epidemiology of pemphigus neonatorum.
(Impetigo contagiosa bullosum?)

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On account of recrudescences of this condition in obstetric wards following long periods of quiescence the presumption obtains that the infection has never been completely eradicated from the institution. In order to verify this conjecture, attention has been concentrated on the sporadic case, especially that one occurring after months of freedom from the disease.

Careful study of such a case reveals the interesting fact that the origin of the disease in the infant was apparently by way of the mother's milk, which was heavily infected with pure hemolytic staphylococcus aureus and albus, the former predominating. The lesion on the infant's skin followed forty-eight hours after a rather generalized rash on the mother. It was of note that aside from this macular type of rash the mother was quite normal. The rash itself resembled that often caused by drugs. Cultures of the cervix blood and stool were negative for the infecting organisms, but the urine contained a few colonies. The first and last portions obtained by completely emptying the breasts with a sterile breast pump contained approximately equal numbers of the organisms, which were quite abundant, although no evidence of mastitis was present, either clinical or from examination of the milk.

Although ingesting large numbers of the organism in the milk, the infant's stools were negative for the specific germ, which ruled out the possibility of the initial thigh lesions being the result of direct contamination from the stool. Many lesions appeared on the baby's face and head about seventy-two hours after those on the thighs. All this evidence points to a mild systemic infection via the upper respiratory or intestinal tracts.

Successful feeding experiments of young guinea pigs rather confirms this idea. A certain per cent. of these animals fed with cultures of the organism in milk developed a pneumonia, the

lungs yielding pure cultures of the organisms fed. One of the adult pigs that suckled the young pigs also died of this type of pneumonia.

The fact that the child when taken from the mother's breast quickly recovered, also points to the conclusion that the mother herself was the infecting source, and that in order to control such infection careful isolation of both mother and child is essential. The mother may harbor the organism in the milk with clinical symptoms that are so little noticeable as to be mistaken for something else, quite insignificant in nature. The freedom from mastitis in this case suggests that the organism lived a commensal existence in this menstruum.

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Water retention in the body.

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This study was undertaken with the purpose of getting some information on the factors influencing water retention in the human body particularly with regard to food substances. Experiments were conducted on medical students of the University, during the late winter which in Berkeley is well adapted to experimentation of this kind since there are long periods of almost constant temperature (about 65° F.) and humidity (75 per cent.) and the laboratories are not heated. Diet was controlled and constant. No liquid was taken after 6 P. M. the night before, breakfast consisting of one egg and a slice of toast with no liquid was eaten at 7:30 A. M. and no luncheon was taken. Urine was voided at 8 A. M. and the first sample collected at 9 A. M. after which one liter of water or the experimental solution was taken and urine samples collected at hourly or half-hourly periods for three or four hours after the diuresis had apparently ceased. Determination of volume, specific gravity, total nitrogen and chlorides were made and the results of sev-