

of puerperal sepsis have noted a larger quantity of blood than usual. (2) The late onset, ten days after confinement. (3) The length of the illness, in spite of the severe nature of the disease. The temperature several times reached 107.2 degrees. (4) The tolerance of alcohol, an observation often made in septic cases. This patient took very large doses of whiskey and of champagne without the slightest sign of intoxication.

In diphtheria as high as 25,000 units of antitoxin have been given, and we persevered with this serum because we were unable to find any reports of the effect of large doses. Of course the mode of action in the two sera is different, the efficiency of the streptococcic serum seeming to depend upon the increased phagocytosis which it establishes. In acute cases the best results have been obtained from large doses of serum prepared from a streptococcus of human origin. Unfortunately there is yet no way of arriving at a standard as in antitoxin, and the only measure of its potency is upon the individual.

In regard to the bacteriology of this disease, it is possible that, although the streptococcus may be found in the lochia, it may be present only as a saprophyte, and the septicemia may be due to the gonococcus from an old pus tube or to some other bacterium in another undiscovered focus.

Great stress is laid, too, on the bacteriological examination of the blood, but this is not always helpful to the diagnosis. Houghton² has shown that approximately normal blood contains pyogenic bacteria in a greater or less degree, and concludes that the bacteriological examination is of very little value in the diagnosis, prognosis or treatment, because organisms found in the blood to-day may be absent to-morrow.

There is one contra-indication for the use of antistreptococcic serum. When there is a walled-off collection of pus, the serum increases the absorption of the toxic products. A persistent absence of leucocytosis may also be regarded as a sign of ill omen.

[Reports of this kind are very valuable, and I should like to get as many as possible. I do not, however, agree with some of the conclusions. The onset in this case was not late (in my opinion). The most common symptoms of sepsis were present from the second day and thereafter, viz., headache, sleeplessness, high temperature, and rapid pulse (a persistent pulse-rate of 90 for nine days after should never be considered normal). As to the serum, I think that if two doses of 20, and 10 cm. within twelve hours do not cause a decided improvement, further administration will do no good, and is likely to do harm.—A. H. W.]

² Houghton: *Jour. Amer. Med. Assoc.*, Vol. 41, page 933, and *Post-graduate*, New York, September, 1903.