

suggests at the outside 5 to 10 grains every six hours—20 to 40 grains per day; and so on of others whom I have consulted. The point is they do not exhibit large enough doses.

Now to close this rather rambling talk, I may outline what I think should be done, omitting a consideration of everything except that which applies to the quinine.

First, give a mercurial purgative, free, as say calomel, 3 grains, at once, and follow in six hours by a saline.

This to prepare the way for the quinine to act, for we have been well taught by some of the fathers in medicine that with a congested liver quinine is inert.

Thus Sir Lauder Brunton quotes Sir Joseph Fayrer, who, in speaking of the treatment of malaria by quinine, says: "We might just as well throw the quinine down the sink as to administer it under such circumstances" (a loaded liver).

Give 15 to 20 grains at once and 3 to 5 grains each hour for 24, 36 or 48 hours, if needed.

These are the smallest doses that should be administered, but I would not fear to give much larger ones.

Now what of the cases in which these large doses of quinine are not successful in bringing about a speedy termination of the disease, or are only partially successful in so doing? Are they not mixed infections in which we have the malignant influence of other germs which are not prejudiced in their growth by the quinine circulating in the blood? That seems a reasonable explanation of the old cases, which cannot be considered frank pneumonia. Just as the streptococcus greatly increases the virulence of diphtheria, so may the streptococcus render the quinine only partially valuable in such mixed infections of pneumonia.

May I mention some other drugs which have been held to act upon the pneumococcus in a similar way to quinine: Sod. sal., ammon. sal. (aspirin, Peabody); creosote, creosote carb.

Sebring (*Med. Rec.*, April, 1899) says that 100 cases treated by 10 grains ac. sal. every two hours gave only one death. I have had no experience with these drugs, having been well satisfied with the action of quinine now for eight or ten years. I shall not discuss with this learned society the toxic aspect of quinine, but may say that I have had no evil experience with the drug in a large number of cases. Certainly the doses I have used are in no way poisonous, nor are their ill effects other than unimportant and fleeting.