

little or no pain, I think we should very carefully consider the advisability of early operative measures; especially is this the case in streptococci infections with a condition of leucocytosis.

*Treatment: Abortive.*—Free and unobstructed drainage is the essential feature. If the case is seen before a perforation has taken place one should first sterilize the canal. The opening in the drum should be free and extend from the floor to the roof. One may quite properly extend the incision into the posterior superior wall if there is much congestion there. An anæsthetic may be necessary, gas or ethyl chloride, depending on the patient, but a solution of cocaine in analine oil and alcohol will answer very well. A small opening, badly situated for drainage, will require enlargement.

Local depletion of blood is of value. Leeches may be freely used early. Cold, in form of ice coils, has not been of any permanent value in my hands; it may greatly mask the course of the disease, as the external evidence of the disease may go away while the destructive process continues in the deeper cells. The cases in which cold over the mastoid has apparently been of value are not cases of pus in the bone. The exudation is not yet purulent, but rapidly becomes so, and cold may retard this, and if used early enough not only will delay pain, but lessen the exudate, at any rate in the superficial cells. Rest in bed, free use of calomel and salines are essential points to carry out. Frequent and copious irrigations of the auditory canal with hot saline, hydrag cyanide (1-5000), or similar preparation, greatly assist resolution and are very comforting to the patients. Strips of sterile gauze laid along the floor of the canal, and changed every hour or oftener, helps to keep the canal clean and assists the tympanum to get rid of the pus. Care must be taken that the gauze wick does not act as a plug, and if any doubt on this point occurs the wick had better be discontinued. Carbolic acid and glycerine used as ear drops are of value and give relief to pain. Frequent aspiration with a large Seigle speculum or Sondermanns or Mucks suction apparatus is of marked value in draining the middle ear rapidly. The condition of the naso-pharynx requires consideration, and I am sure the use of a strongly medicated vapor of oils and disinfectants thrown into the middle ear through the eustachian tube is of decided value. Care must be taken that there is free exit from the tympanum through the drum-head, and that the vapor is not irritating. I do not use powders in the ear at all in these cases, for the following reason: I can see no use in blowing powder over a membrane (the drum-head) which has nothing to do with the disease. The inflamma-