Correspondence

Letters to the Editor should not exceed 500 words.

Clostridial Sepsis

SIR,—This laboratory receives occasional requests for advice from hospitals in which a case of gas gangrene has followed a "clean" surgical operation. Because little is known about the circumstances in which this disastrous complication occurs we made a request for information about cases of clostridial sepsis following a second operation at which the skin in 18 of the operations was autoclaved or sterilized by dry heat, and in two instances all the instruments were boiled. The remainder fell into two groups: those in which most objects were boiled, but a few (e.g., the prosthesis, drills, or saws) were sterilized in the autoclave or by hot air; and those in which most objects were autoclaved, but some (e.g., saws, osteotomes, or chisels) were boiled or kept in disinfectant solutions. Preoperative treatment of the skin in 18 of the operations was said to have been with the following: Hibitane (chlorhexidine) in spirit or isopropanol 8, Savlon in spirit 1, Cetavlon (cetrimide) in spirit 1, Savlon 2, Cetavlon 1, Merthiolate in spirit 1, spirit of biniolide 1, iodine in spirit 2, Betadine 1.

Clostridial spores might have reached the wounds in one of several ways: from the air in the poorly ventilated theatres; on instruments where the sterilization methods were inadequate; or from the skin of the operation site. It is clear, however, that clostridial sepsis sometimes follows operations carried out in the most modern operating-theatres with good ventilation and adequate and well-supervised arrangements for the sterilization of instruments and dressings.

The site of the operations suggests that the infecting organism may often have come from the bowel of the patient. It is therefore important that the preoperative skin treatment should include the application of an agent which is relatively effective in killing bacterial spores on the skin—e.g., compresses soaked with an iodophor.2 This appears not to have been the case in at least 15 of the 18 operations about which we have information. In any event, the complete destruction of large numbers of spores on the skin may not be attained, and the physical removal of as much as possible of the "transient" skin flora by repeated washing with a detergent solution is to be recommended as a first step.

Even if the skin is effectively sterilized before operation it is not certain that a wound near the anus can always be kept free from contamination with clostridia during the whole of an extensive surgical operation. This raises the question whether specific measures should be taken to prevent clostridial infection in operations known to carry a risk of this complication. Gas gangrene after amputation through the thigh in patients with arterial insufficiency is a well-recognized hazard, and it is for this reason that penicillin prophylaxis has been recommended for this operation.2 The fact that operations in which a foreign body is inserted into bone, particularly in the hip region, may also be followed by serious clostridial infection should prompt orthopaedic surgeons to consider giving a short course of penicillin in high dosage to patients who have undergone these operations. None of the cases in this series had received prophylactic penicillin.

Fuller details of the findings in this investigation will be published later. We wish to thank the colleagues who have provided us with information, and to ask those who encounter similar cases in the future to inform us.—I am, etc.,

M. T. PARKER.

Cross-infection Reference Laboratory,

REFERENCES

Ascorbic Acid and Colds

SIR,—I read with considerable interest the article by Dr. Georgina H. Walker and her colleagues (11 March, p. 603), in which they described their studies on the use of ascorbic acid for the treatment of symptoms in the common cold. While they are to be congratulated on a critical examination of this difficult problem, I feel that it is important to question the interpretation of some of their results. Their studies were conducted on a selected group of volunteers, but they did not indicate their sexes or ages. They used an artificial method for infection of their subjects consisting of the intranasal instillation of a saline suspension virus which they claim produces comparable symptoms to those experienced by people exposed to natural infection. Their numbers were small, since only 36 patients developed colds out of the'91 subjects who were inoculated, yet no information was provided about whether the subjects had all received a comparable intake of ascorbic acid prior to the investigation. For three days preceding intranasal instillation of the selected virus, the experimental subjects received 3 g. of ascorbic acid, but the experimental results provided no evidence that ascorbic acid affected the incidence or severity of colds, or the duration or type of symptoms in the subjects under these conditions.

In the general population colds develop in a rather more random fashion, and a variety of factors may influence their incidence and course. Among these factors the consumption of large doses of ascorbic acid in the very early stages of a cold is popularly believed to have a therapeutic effect in suppressing symptoms; Dr. Walker and her colleagues used this type of medication in their studies. The effect of ascorbic acid has been investigated in Dublin in large field surveys during two winter periods of six months each since 1965. In these surveys tablets have been given to the subjects daily, and the ability of ascorbic acid to prevent the occurrence of colds in a population—that is, its prophylactic effect—has been studied. The results of these investigations are not yet published as 10.1136/bmj.2.5553.698 on 10 June 1967. Downloaded from http://www.bmj.com/ on 18 September 2023 by guest. Protected by copyright.