

appropriate consultant to the G.P., who can then give suitable advice with minimal delay. Perhaps I misunderstand Mr. Wilson Clyne, but the time and anxiety involved in hospital consultation are of some moment to the patient and ought to be reduced if reasonably possible. I wonder what the G.P. thinks?—I am, etc.,

EDWARD PINK.

Department of Obstetrics and Gynaecology,
General Hospital,
Johore Bahru, Malaya.

Dental Hygiene

SIR,—After reading much correspondence and reports of discussions on the question of dental hygiene—I have found it extremely difficult to discover what the dental profession really does think is the correct routine method. Having thought over the question for many years I have come to certain conclusions: (1) that the toothbrush is the most septic object in the bathroom. I am quite sure a culture from most of them would produce horrifying results. It is also nearly always used with a vigorous up and down movement which scarifies the gum margin and injects bacteria between gum and tooth. It should, I imagine, only be used for the biting surface, if it is used at all. (2) That toothpastes are useless and a waste of money. (3) That the only reasonable method is to use interdental sticks after breakfast and before retiring, and then rinse the mouth vigorously with water to force it through the gaps. This is the one employed by primitive people, and because our teeth are closer together it is even more important to keep the spaces clear. It is a very simple method and any child would understand how to do it. I am told that in some Continental countries a child does not leave the table until he has correctly used his toothpick.—I am, etc.,

London W.1.

O. GAYER MORGAN.

First-aid for Burns

SIR,—I was interested in your annotation on the first-aid treatment of burns (November 5, p. 1375), in which comment was made on the value of cold as a first-aid measure. The consequences of first- and second-degree burns of the tissues are thought to be brought about by the local production of histamine. This causes local vasodilatation, and a consequent transudation of plasma into the interstitial spaces, causing oedema; and this, being superficial in the case of burns, may cause blistering. Blisters and their sequelae of fluid loss and sepsis are preventable complications of burns.

Once when I was in a patient's house, she burnt her hand and fingers on a hot grilling pan, which she absentmindedly lifted out of the roasting oven with a bare hand. I immediately applied firm cold-water bandages, which were kept wet. Two hours later, there were no blisters and there was no red reaction. Cold-water bandages were continued until next day, when there was no evidence of the burn, and no further treatment was required. I have frequently repeated this technique, and cases seen soon after burning, before the formation of blisters, have not subsequently blistered. I have instructed patients in this technique, which many have themselves carried out successfully.

The application of cold will tend to produce vasoconstriction, and so counteract the histamine reaction of vasodilatation and the consequent transudation of plasma and formation of blisters—the application of firm

pressure also prevents the accumulation of oedema and formation of blisters. Any histamine that is formed is prevented from accumulating locally in oedema, and gets carried away in the circulation, where it is harmless.

This treatment was obviously of limited value in that it could only be applied effectively to burns of limbs and digits which could be compressed, but not to burns of the trunk or face. With the advent of hydrocortisone, it occurred to me that we had a means of preventing the histamine reaction in other parts of the body which had previously been inaccessible to treatment by cold and pressure, since hydrocortisone is a powerful inhibitor of the histamine reaction.

I saw a child who had just been scalded. There was a brilliant erythema over about one-quarter of the trunk, and a few blisters were appearing. Having excised the blisters, I rubbed hydrocortisone and neomycin ointment thoroughly into the burnt area, including the raw surface of the excised blisters, and told the mother to rub it in again three or four times, at half-hourly intervals. Neomycin was used, in addition to hydrocortisone, in view of the risk of infection of the raw surfaces. Twenty-four hours later the erythema had entirely disappeared, no new blisters had lifted, and the ones I had excised were dry. The child required no further treatment.

I now always use hydrocortisone first, and apply cold and pressure as well so far as possible. I use neomycin with hydrocortisone where blisters are already present. The histamine reaction does not develop instantaneously after burning, but takes time, during which it is possible to anticipate and inhibit it. This interval is of vital significance, as it affords an opportunity for preventing the consequences of first- and second-degree burns after they have been sustained.—I am, etc.,

Guildford.

ALLEN J. WHITAKER.

Eleven Vaginal Deliveries after Caesarean

SIR,—After lower-segment caesarean section for non-recurring indications it is now common practice to allow a vaginal delivery in the next labour if conditions are favourable. The imponderable factors are the strength of the uterine scar and the risk of its rupture. If this conservative policy is successful in the second delivery the obstetrician must then decide how many more vaginal deliveries should be attempted. The literature on this subject is summarized by Riva and Breen,¹ but nowhere is the answer to this particular problem given. The usual management is to revert to caesarean delivery after two vaginal deliveries on the grounds that the uterine scar must become progressively weaker with the distension of successive pregnancies and labours. Whether this is a valid assumption has never been proved. The case reported here gives ground for belief that if the scar is initially sound it can resist indefinitely the alleged disadvantages of subsequent child-bearing. After 11 vaginal deliveries the patient's uterine scar showed no dehiscence.

Mrs. C. S., a 37-year-old Maori primipara, had a lower-segment caesarean section for a failed trial of labour in 1943, when she was aged 20. The weight of the baby is not known, nor can any information be obtained about the operation or the puerperium. After this she had 11 normal vaginal deliveries during the years 1945–58, the weights of the babies ranging from 6 lb. 2 oz. (2.78 kg.) to 10 lb. 2 oz. (4.6 kg.).

On April 5, 1960, in her thirteenth pregnancy, she had a lower-segment caesarean section and tubal ligation, the indications being mainly multiparity and an anxiety state. No sign of the previous uterine scar was found except for adherence of the visceral peritoneum to that site.