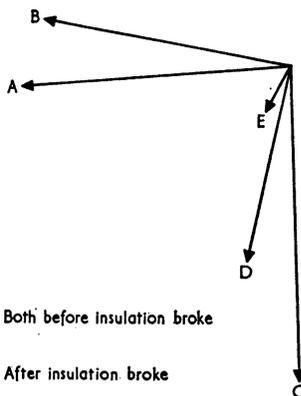


negative lead ruptured near the point of entry of the catheter into the right external jugular vein.



A - August 1967) Both before insulation broke
B - November 1967)
C - January 1968)
D - April 1968) After insulation broke
E - August 1968)

If the insulation on the positive lead breaks then even if the "best" conditions obtain—that is, there is a break in the insulation in the "vertical" part of the catheter—the change in the direction of the resultant electric vector may be masked by the errors inherent in this simple approach to the problem.—We are, etc.,

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Diazepam in Tetanus

SIR,—The establishment of regional centres to treat cases of tetanus has frequently led to long ambulance journeys from the periphery to such centres. For those who have to escort such patients I would like to report the use of diazepam to provide sedation and abolition of tetanus spasms.^{1 2} Two patients with tetanus have been transported 25 miles (40 km.) under this regimen with no trouble.

The first was a male, aged 64, with early tetanus—lockjaw and pyrexia. Sudden noise provoked spasm, but at rest there was no opisthotonos. A slow infusion of intravenous diazepam was made until he was sedated (20 mg.). His transfer was easily completed. The second case was a 78-year-old male with advanced tetanus and constant opisthotonos. Diazepam 17 mg. was injected as before, with complete abolition of spasm and induction of a light sleep. Transfer then proceeded, with only one small spasm on the journey.

In both cases the intravenous cannula was left in situ, and facilities for immediate paralysis and intubation were taken in the ambulance, as well as suction and insufflation apparatus. This regimen would appear to be a considerable advance in the transfer of these patients, and is a logical extension of the role of diazepam in tetanus as shown in recent papers.³⁻⁵—I am, etc.,

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REFERENCES

- ¹ Hendrickse, R. G., and Sherman, P. M., *Lancet*, 1965, 1, 737.

- ² Femi-Pearse, D., *Brit. med. J.*, 1966, 2, 862.
³ Hendrickse, R. G., and Sherman, P. M., *Brit. med. J.*, 1966, 2, 860.
⁴ O'Donohoe, N. V., *J. Irish med. Ass.*, 1967, 60, 89.
⁵ Lockwood, W. R., and Allison, F., *J. Miss. med. Ass.*, 1967, 8, 66.

Cancer of the Breast

SIR,—At the end of his review of *Prognostic Factors in Breast Cancer* (9 November, p. 376) Mr. R. W. Raven briefly indicates his own views on public education and mass screening in breast cancer. He might, however, have pointed out that these views differ from those given in the work being reviewed. Thus Dr. J. Wakefield, in his important paper on "Methods of Public Education," in which he examines fully and critically the various screening procedures for carcinoma of the breast (pp. 235-241), concludes that at present the correct objective is to educate women to report to their doctors as soon as they notice anything wrong in the breasts.—I am, etc.,

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DAVID PATEY.

Antiseptics in Treatment of Burns

SIR,—The prevention of infections is the primary aim in the management of the local lesion in a burn or scald. The multiplicity of methods in use is a good indication that none is completely satisfactory. The use of 0.5% chlorhexidine (1,6-di-(4-chlorophenyl-diguanido) hexane; Hibitane) solution, as a local dressing for burns and scalds was described by Grant and Findlay in 1957.¹ The lesions were covered with gauze swabs soaked in 0.5% Hibitane solution. The dressings were changed twice daily, but the gauze adherent to the lesion was undisturbed, and this gauze was resoaked with the Hibitane solution.

This method has been used successfully during the last 11 years in the surgical paediatric unit, Stobhill General Hospital, Glasgow. One hundred and forty-eight patients were treated in this way, and there was clinical evidence of infection in only 14 (9.8%). A further 19 patients were treated with Aserbine lotion (a solution containing the malic acid ester of propylene glycol 1.05%, malic acid 1.55%, benzoic acid 0.15%, salicylic acid 0.03%), and 29 patients were treated with Aserbine cream (a cream containing the malic acid ester of propylene glycol 0.16%, malic acid 0.25%, benzoic acid 0.025%, salicylic acid 0.005%). The numbers are small and the lesions are so varied in extent, degree, and site that no attempt can be made to compare the methods statistically. Four (21%) of the 19 patients treated with Aserbine lotion and seven (24%) of the 29 patients treated with Aserbine cream developed clinical evidence of infection.

Most of the patients in the series are in the "toddler" age group (mean age 2 years 7 months), and the exposure method at this age requires the use of restrainers. Because of this, the method was used to treat burns of face and buttocks only, where dressings have obvious disadvantages. Twenty-seven were treated in this way and only one developed evidence of infection, but they were a specially selected group who all suffered from superficial burns involving a small surface area.

The rationale of antiseptic methods in the treatment of patients with burns in a general ward is that contamination of the environment is accepted, but by frequent application

of antiseptics to the dressings the organisms are prevented from getting access to the lesions. Until a non-toxic antibiotic is discovered to which all common contaminants of a burn are sensitive, the antiseptic method would seem to be the one of choice. In this series the infection rate was higher with Aserbine than with Hibitane, though the numbers treated were too small to make the findings significant. Sloughs, however, separated more quickly with Aserbine, but the method was discontinued because the application of the lotion caused considerable stinging. Two patients who were treated with Hibitane lotion developed skin reactions, but the reaction was not severe enough to require the method to be discontinued.

The use of Aserbine cream was discontinued because of the higher rate of infection. This may have been because the dressings were changed once a day only, and the antibacterial properties of the Aserbine were not retained for that length of time. The scraping off and the reapplication of cream to the lesion more often was not considered practicable. The method using Hibitane solution was reintroduced following the trial with Aserbine lotion and cream, and continues to give what are considered to be satisfactory results.—I am, etc.,

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REFERENCE

- ¹ Grant, J. C., and Findlay, J. C., *Lancet*, 1957, 1, 862.

Bladder Distension and Leg Oedema

SIR,—The account by Mr. Haziq-ul-Yaqin (9 November, p. 369) of a patient who suffered from oedema of the lower limbs caused by a distended bladder interested me. All experienced urologists see occasional cases of gross bladder distension causing oedema of the lower limbs by pressure on the iliac veins. The paucity of such reports in the literature is no real measure of their frequency. As in the case reported, the remarkable feature is how distended the bladder can be without the patient's or even his general practitioner's knowledge. The commonest pelvic swelling in a male is a distended bladder, and in a female a pregnant uterus: a clinical rule which is now so frequently forgotten, often with disastrous results. It is difficult to believe that such patients are sometimes explored as cases of pelvic tumour.

The mechanism of the oedema in this case is doubtful. We are told the bladder is atonic. If the pressure in the bladder is low it is difficult to understand how it can cause obstruction of the venous return, although no doubt it may cause a lymphatic obstruction. Everyone interested in the treatment of vesical atony remaining after the cure of bladder neck obstruction will be interested in the excellent results reported after bladder capacity reduction operation recently devised by Hamilton Stewart,¹ although we would like to know a little more about the final state, particularly how much residual urine remains.—I am, etc.,

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REFERENCE

- ¹ Stewart, H. H., *Brit. J. Urol.*, 1966, 38, 685.