

widespread psoriasis and generalised osteoporosis precluded treating the fracture by internal fixation because of the risk of infection and mechanical failure of the implant. The brace may also have acted as an occlusive dressing since the psoriatic skin beneath definitely improved and as yet there has been no relapse.

¹ Sarmiento, A, *Journal of Bone and Joint Surgery*, 1970, **52A**, 295.

² Sarmiento, A, *Journal of Bone and Joint Surgery*, 1973, **55A**, 1307.

(Accepted 29 June 1979)

The General Hospital, Birmingham B4 6NH

N M P CLARKE, MB, CHB, registrar in orthopaedics (present address: Selly Oak Hospital, Birmingham B29 6JD)

D N SMITH, MB, FRCS, senior registrar in orthopaedics

C J PAUL, MB, MRCP, senior registrar in dermatology

Use of ethamsylate in vaginal surgery and deep-vein thrombosis

Ethamsylate (Dicynene) reduces small vessel haemorrhage, both surgical and non-surgical.¹⁻³ Its exact mode of action is still unknown, but probably it decreases capillary fragility. Much of the morbidity after vaginal surgery is due to haematoma formation with secondary infection. We thought it reasonable to assume that if small vessel fragility was reduced fewer haematomas would be formed. Nevertheless, the use of ethamsylate might increase the risk of postoperative deep-vein thrombosis in these patients. We therefore carried out a randomised, double-blind clinical trial to evaluate the use of ethamsylate in patients undergoing vaginal surgery.

Patients, methods, and results

Forty-two patients were studied. They were admitted between December 1977 and September 1978 for major vaginal procedures. Patients with a known or suspected bleeding diathesis were excluded. Informed consent was obtained in each case. Prerandomised coded ampoules were used in a double-blind manner. The code was not broken until the trial was completed. Ethamsylate 750 mg or the equivalent volume of placebo was injected intravenously immediately after the induction of general anaesthesia. Several different surgeons participated and their operative techniques were those usually adopted. The use of epidural anaesthesia or local infiltration with vasoconstricting agents was noted. The operative blood loss was estimated clinically in each case.

Deep-vein thrombosis was diagnosed by using ¹²⁵I-labelled fibrinogen as described by Atkins and Hawkins.⁴ Daily leg measurements were taken on the medial surface of each limb. A base-line reading was made preoperatively and further measurements taken for three or four days postoperatively.

The mean age of the 23 patients receiving ethamsylate was 58.2 years and of the 19 in the placebo group 60.5 years. One patient in each group had venous varicosities of the lower limb. Five in the ethamsylate group were regarded as being overweight (over 11½ stone (73 kg)) compared with two in the placebo group. Those given epidural anaesthesia as an adjunct to surgery numbered five (22%) in the ethamsylate and six (32%) in the placebo group. Seventeen (74%) of those given ethamsylate and 13 (68%) of those given placebo received a local vasoconstricting agent before surgery. The postoperative morbidity in the patients in the two groups is shown in the table. One of the patients in the deep-vein thrombosis group developed femoral vein thrombosis, confirmed clinically, while the others (with calf thrombosis) were clinically asymptomatic.

Morbidity after vaginal surgery in patients given ethamsylate compared with those given placebo

Morbidity	Ethamsylate (n = 23)	Placebo (n = 19)	Significance
Mean (±SD) estimated blood loss (ml)	161 ± 103	263 ± 215	NS (P > 0.05)
Mean (±SD) No of postoperative days max temp > 37.2°C	1.74 ± 1.66	2.53 ± 2.01	NS
Postoperative pathogenic vaginal infection	2	6	NS (χ ² = 2.205)
Vaginal haematoma (five-day assessment)	1	4	NS (χ ² = 1.404)
Deep-vein thrombosis (diagnosed isotopically)	6	0	P < 0.05 (χ ² = 3.848)

Comment

The modest (though statistically non-significant) reduction in estimated blood loss and in the incidence of fever, haematoma formation, and infection in the ethamsylate-treated group is compatible with our working hypothesis that ethamsylate might be expected to reduce the morbidity of major vaginal surgery. Nevertheless, the significant increase in incidence of leg-vein thrombosis in the ethamsylate group is of major concern. The ¹²⁵I-labelled fibrinogen technique is a most accurate means of diagnosing leg-vein thrombosis.⁵ The incidence of deep venous thrombosis in patients after vaginal surgery is generally accepted to be under 10%. In our ethamsylate-treated group it was 26%. One possible explanation for this is the effect of ethamsylate on platelet activity.² An incidence of leg-vein thrombosis of this order appears to outweigh the benefit of the modest reduction in morbidity suggested by this study and to make the operative use of ethamsylate in this form of surgery inadvisable.

We thank Delendale Laboratories for supplying coded ampoules of ethamsylate.

¹ Harrison, R F, and Campbell, S, *Lancet*, 1976, **2**, 283.

² Deacock, A R de C, and Birley, D M, *British Journal of Anaesthesia*, 1969, **41**, 18.

³ Symes, J M, et al, *British Journal of Urology*, 1975, **47**, 203.

⁴ Atkins, P, and Hawkins, L A, *Lancet*, 1965, **2**, 1217.

⁵ Lambie, J M, et al, *British Medical Journal*, 1975, **2**, 142.

(Accepted 5 July 1979)

Southmead General Hospital, Westbury-on-Trym, Bristol BS10 5NB

M F VERE, FRCS, MRCOG, senior registrar in obstetrics and gynaecology
S M SELLERS, MRCOG, registrar in obstetrics and gynaecology (present address: Nuffield Department of Obstetrics and Gynaecology, John Radcliffe Hospital, Headington, Oxford)

D N JOYCE, DM, MRCOG, consultant senior lecturer in obstetrics and gynaecology

Avon Area Department of Medical Physics, Bristol

G E STADDON, BSc, principal physicist

ONE HUNDRED YEARS AGO In answer to "Alpha," in reference to the treatment of the poison of adders, I would suggest that the treatment to be adopted should be based simply on common sense. I have travelled in many lands, and though having on one occasion a close escape from a brown snake, considered one of the most, if not the most, poisonous snakes in Australia, still I have not met with a case of snake-bite of a dangerous type; consequently, I am unable to speak of any treatment from personal experience. I have had, however, many opportunities of conversing with those calculated to give information on the subject, and all have declared that the treatment to be resorted to *instantly* is the internal administration of stimulants. They mentioned local applications, but I do not think that they placed much confidence in them. From the exceedingly rapid absorption of the poison, I am inclined to think, if one were to apply any remedy of a caustic nature, or otherwise, the instant one is poisoned, it would be useless; and that, where credit is given to it for a successful issue, the case, if left to itself, as many are from various circumstances, would recover after a time, when the poisonous effect of the bite has expended itself. All snake-bites are instantly followed by intense shock, its continuance being determined by the nature of the bite and the speedy administration of stimulants; and in the case of the cobra da capello, it is doubtful whether any treatment will be successful, from the fearful rapidity with which death occurs, before it is possible for stimulants to exercise any effect. A Texan gentleman once told me that, in Texas, the moment one has been struck down by a snake, they pour in stimulants *ad libitum*; and should this succeed, from the potency of the liquor or from the time allowed for absorption, in bringing the patient well under its influence, he is safe. I have no doubt that, if "Alpha," when he next meets with a case of adder-bite, succeeds in establishing the circulation, and carrying the patient through the period of shock, he will be successful. Of course, I am not forgetful of the injection of a strong solution of ammonia, as recommended by Dr Halford of Melbourne, and successfully carried out in some instances; but one is far more likely to have stimulants at hand than ammonia. Had I not some years ago, in a simple case of a bee-sting, followed by the most alarming collapse, given Irish whiskey freely, I am satisfied my patient would have been no more. (*British Medical Journal*, 1879.)