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Pulsed electromagnetic energy and pre-tibial lacerations

Sir

I wish to comment on the letter from Muirhead *et al.* (*Archives of Emergency Medicine* 8(2) 152–154). Their study appears to have been well planned but the conduct of it must have met unanticipated problems. They state that, after exclusions, 48 patients were entered into both the treatment and the control groups but Table 3 which reports healing times only includes 15 treated patients and 13 controls. It is not clear from the text whether Table 3 relates only to female patients under 60 years of age but it does show a clear preference for the patients with pulsed electromagnetic energy.

It is unfortunate that the authors chose to do this study using a Curapuls machine which is a maverick device among machines of this nature. The original Diapulse machine and the widely used Megapulse machine use a pulse width of 50–65 μ s, Curapuls uses 400 μ s. The underlying reason behind using a pulsed field is that the biological action results from the on/off effect and any heat generated by the field will be dissipated during the resting phase and before the next pulse occurs. In my own studies using the Diapulse device I have found that 400 pulses s^{-1} with a 65 μ s pulse width applied for 20 min gives a definite beneficial therapeutic effect (Wilson, 1972).

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Massive haemothorax from central venous catheterization: a note of caution

Sir

The various techniques for central venous catheterization are an essential component of the armamentarium of physicians providing emergency care (Parsa & Tabora, 1986; Putterman, 1986). Though the list of complications associated with this procedure is quite long, proper attention to technique and to patient management can reduce attendant morbidity and mortality to an acceptable minimum (McGoon *et al.*, 1979).

Perforation of venous vascular structures is a relatively rare, but potentially lethal, complication of central venous catheterization. It is recommended that a