

### Lingual haematoma after treatment with alteplase (recombinant tissue plasminogen activator) for acute myocardial infarction

SIR,—McMechan *et al* reported the development of lingual haematoma after alteplase treatment for acute myocardial infarction.<sup>1</sup> However, their patient was treated not only with alteplase (100 mg) but also with soluble aspirin (300 mg), a bolus dose of heparin (5000 units), and a heparin infusion (1000 units/h). Any or all three of these treatments could have caused the haematoma.

There are many published reports of haemorrhages and haematomas occurring after anticoagulation. Most haemorrhages are readily apparent and easy to diagnose. Sometimes, however, bleeding occurs in areas that are not easily felt or seen. Massive sublingual haemorrhage causing suffocation was reported with coumadin.<sup>2</sup> We described and named the "iliacus haematoma syndrome" which consists of haemorrhagic paralysis of the femoral nerve as a complication of heparin and warfarin.<sup>3,4</sup> Other reported rare sites of bleeding during anticoagulation are into a salivary gland,<sup>5</sup> into a pulmonary cyst,<sup>6</sup> into a pheochromocytoma,<sup>7</sup> into the ureter (producing urinary obstruction),<sup>8</sup> into the calf (where it mimicked veno-occlusive disease),<sup>9</sup> and into the shoulder (where it produced brachial plexus neuropathy).<sup>10</sup>

Any patient who complains of pain, swelling, or discoloration during thrombolysis, anticoagulation, or combined thrombolytic and anticoagulant treatment must

have careful clinical and laboratory assessment. This will detect any systemic involvement and lead to prompt treatment.

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- 1 McMechan SR, Morrow B, Campbell NPS. Lingual haematoma after treatment with alteplase (recombinant tissue plasminogen activator) for acute myocardial infarction. *Br Heart J* 1995;73:205.
- 2 Revach M, Kabili S, Zemer D. Massive sublingual hemorrhage due to coumadin causing suffocation. *Harefuah* 1970;50:675-6.
- 3 Kounis NG, Macauley MB, Ghorbal MS. Iliacus hematoma syndrome. *Can Med Ass J* 1975;112:872-3.
- 4 Kounis NG, Karatzas GE. Haemorrhagic complications of anticoagulants. Heparin-induced femoral neuropathy. *Practitioner* 1980;224:741-2.
- 5 De Castro CM, Hall RJ, Glasser SP. Salivary gland hemorrhage. An unusual complication of coumadin anticoagulation. *Am Heart J* 1970;50:673-6.
- 6 Kent DC. Bleeding into pulmonary cyst associated with anticoagulant therapy. *Am Rev Resp Dis* 1965;92:108-9.
- 7 McAlister WH, Coehler PR. Hemorrhage into a pheochromocytoma in a patient on anticoagulants. *J Can Ass Radiol* 1967;18:404-5.
- 8 Nade S. Acute urinary suppression due to bilateral ureteric obstruction by blood clot. An unusual feature of anticoagulant therapy. *Med J Aust* 1972;i:378-9.
- 9 Kounis NG, Alexandridis T, Gogos CA. Calf haematoma masquerading as venoocclusive disease during anticoagulation. *Br J Clin Pract* 1986;40:541-2.

- 10 Frangides G, Kounis NG. Anticoagulant-induced shoulder hematoma producing brachial plexus neuropathy. *Angiology* 1992; 43:701-5.

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## NOTICES

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The 1996 Annual Meeting of the **British Cardiac Society** will take place at the Scottish Exhibition & Conference Centre, Glasgow from 7 to 9 May.

The **12th Symposium on Echocardiology and the 9th Meeting of the International Cardiac Doppler Society** will be held on June 25, 26, and 27 1997 at the Erasmus University Congress Centre in Rotterdam, The Netherlands. General information can be obtained from LMC Congress and Business Services, PO Box 593, 3700 AN Zeist, The Netherlands (tel: +31 (343) 515 134; fax: +31 (343) 533 357).

A **Practical Adult Cardiovascular Pathology Course**, will take place on Tuesday 17 September 1996 at the National Heart and Lung Institute. Enquiries should be made to Education and Conference Centre, National Heart and Lung Institute, Dovehouse Street, London SW3 6LY (tel: 0171 351 8172 (24 hour answering service); fax: 0171 376 3442).