

## European Medical Research Group

The European Medical Research Group has met twice during the year at the Medical Society of London, Lettsom House, 11 Chandos Street, London W1.

On 16 February 1993 the guest speaker was Dr Patrick Vallance (St George's Hospital Medical School, London) who gave a lecture on 'Role of nitric oxide in the human cardiovascular system'.

On 1 June 1993 the guest speaker was Professor P.D. Griffiths (Royal Free Hospital, London) who gave a lecture on 'CMV and HIV'.

Poster sessions were held after the lectures demonstrating the research in progress of members of the Group. Two of these are published below.

### Two-years follow-up of myocardial perfusion in cardiomyoplasty (Abstract)

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This study aimed to quantify the myocardial perfusion in patients with severe postinfarction heart failure by follow-up of cardiomyoplasty (CMP) treatment, using short-living thallium isotope [<sup>199</sup>Tl]SPECT.<sup>1</sup>

Fourteen patients underwent m.lattissimus dorsi CMP (myostimulator EKS-445) and 12 controls (who voluntarily rejected the CMP) were involved in the study. In all patients the pre-operative left ventricular (LV) ejection fraction was less than 35%. In the CMP group 3 patients died (1 sudden cardiac death, 1 ischaemia stroke, 1 acute myocardial infarction) in the course of 2 years follow-up. Six patients in the control group died during the same period. All were investigated using dipyridamole-[<sup>199</sup>Tl] (240 MBq) SPECT. [<sup>199</sup>Tl]myocardial uptake was quantified on SPECT slices as (% of dose/cub.cm,  $1 \times 10^{-2}$ ). Fixed (fix.) and reversible (rev.) myocardial perfusion defects' volumes (PDV, expressed as % of LV volume), myocardium/lung voxel count index (myoc/pulm), and the coronary fraction of cardiac output (CF, as relation of myocardium count to whole body count, % of CO) were estimated.

There was no difference in any index between groups before the cardiomyoplasty. Coronary fraction of thallium-199 uptake progressive increased in the CMP group (from  $3.93 \pm 0.16$  before operation to  $4.82 \pm 0.29$ ,  $P < 0.05$  in early and  $5.24 \pm 0.12$ ,  $P < 0.001$  in late period after surgery) in spite of control group ( $3.99 \pm 0.19$  at initial study and  $3.93 \pm 0.17$  7 months–2 years after). LV mean 199-TlC1 uptake increased in CMP group from  $2.25 \pm 0.07$  before to  $2.64 \pm 0.11$  in early terms and  $2.74 \pm 0.09$  % of dose/cub.cm\*10, in 2 years after CMP. There was

significant increase of myoc/pulm 199-thallium uptake index in control group from  $2.10 \pm 0.25$  to  $3.17 \pm 0.15$  ( $P < 0.01$ ) and decrease of perfusion defect from  $41.3 \pm 2.4$  to  $27.1 \pm 2.5$  (% of LV mass,  $P < 0.001$ ) as results of the CMP. Significant improvement of myocardial perfusion indices preceded and predicted a subsequent rise of ejection fraction and physical work capacity.<sup>2</sup> The control group did not show any positive dynamic of myocardial perfusion or clinical improvement.

Thus, the data argue that cardiomyoplasty induces significant, early increasing of coronary perfusion indices in patients with severe atherosclerotic and postinfarction myocardial damage unprone to aortocoronary bypass grafting, which may be one of the beneficial factors improving the functional class and clinical outcome.

### References

1. Lishmanov, Y.B., Chernov, V.I., Krivonogov, N., Ussov, W.Y. & Glukhov, G. Experimental studies of thallium-199 application for myocardial perfusion studies. *Medicina Nuclearis (Berlin)* 1989, V1: 211–215.
2. Ussov, W., Chernov, V., Lishmanov, Y.B., Achmedov, S.D., Vesnina, J., Volkova, T., Krivonogov, N. & Pekarsky, V. Early postoperative radionuclide evaluation of myocardial perfusion in patients undergoing cardiomyoplasty. *Thoracic Surgery (Moscow)* 1992, 27: 36–42.

### Indications for percutaneous endoscopic gastrostomy in an unselected patient population (Abstract)

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A number of reports have described the use of percutaneous endoscopic gastrostomy (PEG) in selected groups. We examined the indications for PEG in a series of unselected patients in the setting of a general hospital. Only patients with a nutritional need who were unable to tolerate a nasogastric tube were considered. Patients with ascites, portal hypertension, active gastric ulcer, coagulopathy and total gastrectomy were excluded. During a 26 month period 77 PEG tubes were inserted in 76 patients (median age 62, range 18–99 years) and were followed up for 6,887 patient days. Indications for PEG were: cerebrovascular disease in 39/76 (51%), persistent vegetative state 11 (14%), cystic fibrosis 12 (16%), motor neurone disease 4 (5%), dementia with chronic confusion 3 (4%), post major surgery 2 (3%), anorexia 2 (3%), chronic renal failure 1 (1%), multiple sclerosis 1 (1%), oesophageal dysmotility 1 (1%) and post pancreatitis 1 (1%). PEG insertion was carried out under intravenous sedation. One patient developed signs of peritoneal irritation immediately after the procedure, which resolved on conservative treatment. All patients receiving feeding via

PEG for more than 14 days gained weight. In 12 (16%) cases swallowing recovered sufficiently to allow removal of the PEG after a median period of 55 days (range 20–150 days). Minor complications included: local sepsis at the insertion site 1 (2%), tube blockage 9 (12%) and tube leakage 4 (5%). In one case a PEG tube was pulled

out accidentally. In all cases PEG feeding continued until recovery or death. We conclude that (a) the use of PEG in an unselected patient population has a low incidence of complications; (b) PEG can be of benefit in patients with reversible dysphagia of few weeks duration and (c) the use of PEG merits wider consideration.

## EUROPEAN DOCTORS IN LONDON

### European Medical Research Group

### Fellowship of Postgraduate Medicine

The European Medical Research Group has been formed by the European Association of Internal Medicine with the support of the Fellowship of Postgraduate Medicine, to provide a meeting place for professional and social contact among physicians in training, particularly those from continental Europe. Regular meetings are held at the Medical Society of London. An invited lecture is given, preceded by poster presentations and followed by a buffet supper.

Members of the Group are mailed regularly about the meetings. Dates of future meetings: 25 January 1994 and 17 May 1994.

*European research fellows and other visiting doctors who would like details of these meetings should write to:*

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