Many thanks to Dr Nosotti et al. [1] for their interest in systematic nodal dissection (SND) [2]. What we practice in Southampton is not ideal; the ideal situation is to find out before the operation, so as to shunt multi-zonal N2 patients to chemotherapy or other modality of treatment. Our series was aimed at early lung cancer proven by computed tomography (CT)- and positron emission tomography (PET)-negative mediastinum.

The evidence for routine mediastinoscopy in CT/PET-negative patients does not recommend it. It suggests that it achieves only a 1.1% reduction in N2 prevalence (evidence 1b–4, recommendation grade C) [3]. Unlike non-invasive techniques, it carries a mortality of 0.07% and needs for thoracotomy of 0.12%. Therefore, we believe that routine mediastinoscopy in CT- and PET-negative patients is unwarranted. On the other hand, transcervical extended mediastinal lymphadenectomy attempts systematic nodal dissection/sampling and hence will have a prominent role in preoperative staging in future.

With regards to endo-bronchial ultrasound-guided trans bronchial needle aspiration, it is our understanding that this is a sampling technique often used to sample nodes visible on CT or PET. Proving that a set of nodes does not have metastatic cells is much more difficult than proving that it has. Herth et al. [4] passed the needle twice in every node >5 mm and ignored nodes <5 mm. We are not sure whether this is enough to verify a negative predictive value of 98.9%. Yet, where can one draw the line? Two needle passes might be equivalent to two slices across a node for histological examination. Should we insist on a 2-mm multislicing of nodes to unveil micrometastases? Similarly, are 10 passes of the needle going to improve the diagnostic yield over two passes? In future, this might be the domain of genomic analysis [5]; but for now conventional histological techniques are relied upon. Indeed, it is the belief of the authors that invasive staging is probably not needed in patients with peripheral tumours with no nodal involvement on CT and PET scans. Logically it follows that this category should also be exempt from routine mediastinoscopy, a recommendation that is missing from both guidelines of the ACCP and the European Society for Thoracic Surgeons. In our series, we have shown clearly that mediastinal involvement [N2] in patients with cT1-3 N0 M0 was 10%. These patients had a completely innocent mediastinum, within the radiological group 1–2 of Detterbeck’s classification. We therefore believe that an SND is mandatory for every patient with NSCLC even if mediastinal involvement was thought unlikely, and irrespective of the how peripheral the primary is.

REFERENCES


LETTER TO THE EDITOR

Recombinant factor VIIa while on extracorporeal membrane oxygenator support: a word of caution†

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†The corresponding author of the original article [1] was invited to reply, but did not respond.
We read with interest the article by Chapman et al. [1]. They showed that patients receiving recombinant factor VIIa (rFVIIa) for intractable bleeding after cardiac surgery are not at an increased risk of thromboembolic events. Therefore, they concluded that this effective haemostatic agent can be used with an acceptable safety profile in this patient population. We would like to ask the authors whether, among the 236 patients receiving rFVIIa, they had patients supported by extracorporeal membrane oxygenator (ECMO).

Bleeding is a major problem in postoperative ECMO implantation for post-cardiomyotomy cardiogenic shock [2]. Severe haemorrhage requiring re-exploration occurs in up to 58% of cases [3] and carries a dismal prognosis. Among patients who returned to the operating theatre, a surgical source of bleeding is not identified in more than half of the patients [1]. Hence, the off-label use of rFVIIa represents an attractive haemostatic agent for controlling bleeding attributed to a disseminated intravascular coagulation-like phenomenon [4].

We entirely agree with their opinion about the effectiveness of rFVIIa as a haemostatic agent, and we would like to report an exceptional thrombotic complication that we recently encountered: a native non-calcified aortic valve thrombosis in a patient on ECMO support who received rFVIIa for massive bleeding after coronary artery bypass grafting (CABG) surgery.

A 60-year-old male patient was admitted on an elective basis for CABG surgery. His past medical history included hypertension and multiple sclerosis. Coronary angiogram revealed triple vessel disease. Transthoracic echocardiography disclosed a normal aortic valve and an ejection fraction at 45%. The patient had a normal hepatic and renal function and a normal coagulation profile before surgery. Cardiopulmonary bypass (CPB) was established through median sternotomy. The obtuse marginal artery was not identified during surgery due to severe adherence between the lateral aspect of the left ventricle and the pericardium while the right coronary artery and the left anterior descending artery were bypassed. Weaning from CPB was unsuccessful, and femoro-femoral ECMO was instituted. The patient was transported to the angiography laboratory where a drug eluting stent was successfully implanted in the proximal circumflex artery. Massive bleeding from the chest tube was recorded. Therefore, a 90-μg/kg of rFVIIa was infused, and bleeding decreased. Heparin infusion was commenced 18 h after the surgery. On postoperative day (POD) 1, a transesophageal echocardiogram (TEE) revealed severely depressed contractility of the left ventricle and thrombus formation on the three cusps of the aortic valve on the aortic side. Despite full heparinization, a complete thrombosis of the aortic valve was disclosed on POD 3, and no clots were noted in the ECMO tubing. His family refused permission for further treatment and he died after the removal of the support.

In view of our experience with this drug, we recommend caution when rFVIIa is used in the postoperative period after cardiac surgery in the setting of ECMO support; careful patient management by routinely performing TEE and maintaining inotropic support for ventricular contractility and cusps mobility is mandatory to prevent thrombus formation on the aortic cusps.

REFERENCES


LETTER TO THE EDITOR

The causes of re-operation in the Ross procedure

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We congratulate our colleagues who have applied the Ross operation thus far [1]. Despite the establishment of annular enlargement, the presence of preoperative aortic regurgitation and autograft re-operation in the aortic stenosis group is said to lessen the need for aortic re-operation and a small-sized homograft leads to higher mortality rates.

In the preoperative aortic regurgitation group, what could be the reason for autograft re-operation? Is it a result of annular...