

Anaesthetic techniques for carotid surgery

In the GALA trial (Dec 20, p 2132),¹ all types of regional anaesthesia were grouped as one: "local anaesthesia". Yet clinical and anatomical studies confirm important differences between simple subcutaneous infiltration, formal "superficial" cervical plexus block, and a deep block. The last two are clinically equally effective,² anatomical investigations showing that the so-called deep cervical fascia might not exist as a distinct or impermeable entity as previously supposed.³ Solutions freely enter the deep space:⁴ local anaesthetic placed relatively superficially in the neck will reach the same anatomical sites as that placed more deeply.

However, the deep block results in a consistently higher rate of direct harm owing to the penetrating needle damaging or entering important vessels or even the cerebrospinal fluid.² We found this direct complication rate to be 0.25% (vs 0% for superficial cervical plexus block), and, further, a higher conversion rate to general anaesthesia of more than 2% (vs 0.4%).² GALA finds an even higher rate of more than 4%.¹ If these instances were confined to deep block, it suggests a perhaps prohibitive complication rate for this method.

The GALA trial results failed to show differences between anaesthetic techniques in terms of cerebral or cardiac outcomes. However, by careful subgroup analysis, GALA might at least help establish which is the safer (and therefore more suitable) regional technique. With efficacy equal, the safety profile will help determine the anaesthetic choice.

I declare that I have no conflict of interest.

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The trial of general versus local anaesthesia for carotid endarterectomy by the GALA group¹ shows no definite difference in outcome between the two techniques. How will this finding affect clinical practice or guide future anaesthetic techniques for carotid endarterectomy?

Local or regional anaesthetic techniques have the advantage that they have been in use for more than 50 years² and are associated with decreased cost and resource use, better neurological outcomes, and reduced need for shunting; however, surgical drapes over the head and face areas can increase claustrophobic anxiety. In our opinion, whichever anaesthetic technique is chosen, cerebral blood flow should be optimised, cardiac stress minimised, and the risk of ischaemia decreased by maintaining normal to high perfusion pressure.

We are also concerned that there might be some limitations to the trial. First, data on complications after anaesthesia (eg, pain, postoperative nausea and vomiting) were not supplied. Second, the exclusion of high-risk patients clearly reduces the statistical power of the trial. Furthermore, in the local anaesthesia group, the exact number of patients under super or deep cervical-plexus block should be stated.

We declare that we have no conflict of interest.

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The General Anaesthesia versus Local Anaesthesia for carotid surgery (GALA) trial¹ did not show a difference in rates of postoperative stroke, myocardial infarction, or death between patients undergoing carotid endarterectomy under local anaesthesia and those undergoing general anaesthesia.

Statins are an essential component in the management of carotid artery disease.² For example, a study on patients undergoing carotid endarterectomy under general anaesthesia or cervical block showed that (after multivariate analysis to adjust for demographics and comorbidities) preoperative statin use was associated with a significant reduction in rates of perioperative stroke (odds ratio 0.35, 0.15–0.85; $p < 0.05$) and perioperative death (0.20, 0.04–0.99; $p < 0.05$).³ Therefore, preoperative statin use in the GALA trial deserves to be mentioned.

We have attended conferences, participated in advisory boards and trials, and given talks sponsored by various pharmaceutical companies (including those that market statins).

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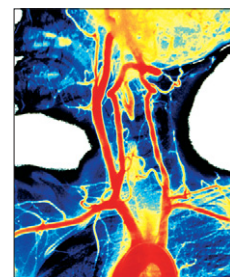
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Authors' reply

Jaideep Pandit suggests that careful subgroup analysis of GALA might help establish which regional anaesthetic technique is safer, but GALA will not reliably answer this question. The trial was designed as a pragmatic trial of a policy of general anaesthesia versus a policy of local anaesthesia, and we



allowed individual centres to provide these techniques and surgery in the way they currently practised. Thus any subsidiary analysis of individual local anaesthetic techniques will be non-randomised (and, moreover, selected by the anaesthetist after the randomised treatment was allocated), and will have to be interpreted very carefully indeed. Even if the overall type of local anaesthetic block had been controlled, there would still have been substantial differences in performance of the technique, choice of type and dose of local anaesthetic agents, addition of vasoconstrictors with potential systemic effects, choice of supplementary sedative or analgesic drugs, antiemetics, antibiotics, and other interventions, all of which can have a potential treatment effect. Similar problems would be likely in trying to control general anaesthetic techniques.

We agree with Lulong Bo and Keming Zhu that maintaining cerebral blood flow and perfusion pressure and reducing cardiac stress are all important. We also agree that complications are of great importance and we are currently preparing a paper on that subject. We are also planning a paper giving greater detail of the anaesthetic techniques used. It was not possible to analyse every part of the data we collected in the short time between database lock and publication, and, in addition, *The Lancet* has a strict word limit, and we could not present all of the analyses that we did do. We did not, as Bo and Zhu suggest, avoid high-risk patients. It was up to individual surgeons and anaesthetists to decide whether to randomise a patient, and some were more cautious than others.

Finally, we agree with Kosmas Paraskevas and Dimitri Mikhailidis that statin use could be important in reducing the risk of perioperative stroke and death, but GALA was not designed to answer this question, and we did not measure statin use at baseline.

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EU target of increasing participation of older workers is not realistic

A study by Carol Jagger and colleagues (Dec 20, p 2124)¹ found a large variation in the remaining healthy years in men and women at 50 years of age between the 25 EU countries in 2005. They conclude that, especially in the ten “new” EU countries where people have less healthy life-years, the target of increasing participation of older people into the labour force will be difficult to meet.

In 2005, we checked for chronic diseases in the medical records of 1150 patients aged between 50 and 56 years in seven general practice clinics in workers’ neighbourhoods in Belgium (unpublished data). 65% of these patients had one or more chronic ailments, and 57% had two or more. Half the patients had chronic muscular diseases or injuries.

In our patient population, musculoskeletal disorders are linked to working conditions in 68% of cases (unpublished data). Moreover, 16% of patient records made mention of chronic stress and depression. Since workers are over-represented in our patient population, we believe that many of these complaints are linked to their working conditions.

Whereas Jagger and colleagues focused on the large differences in health between countries, our findings suggest that the healthy life expectancy of older workers is much lower than average, even in one of the 15 “old” EU countries. Therefore, we believe that the EU target of a 50% employment rate for older workers (aged 55–64 years) by 2010 is not realistic and uncalled for.

We declare that we have no conflict of interest.

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- 1 Jagger C, Gilies C, Moscone F, et al. Inequalities in healthy life years in the 25 countries of the European Union in 2005: a cross-national meta-regression analysis. *Lancet* 2008; 372: 2124–31.

Authors’ reply

In our paper, we showed that healthy life-years can be a valuable metric on which to base evidence-based policy discussions, as shown by our example of the EU target of a 50% employment rate for older workers.¹ We acknowledge that in several countries there is a social gradient with a reduced healthy life expectancy in less privileged social groups² and based on different measures of socioeconomic position such as educational attainment, job classification, and income levels. More specifically within Belgium, differences in health-expectancy indicators by socioeconomic groups have been published³ and the contribution of disabling diseases such as arthritis, back complaints, asthma, and chronic obstructive pulmonary disease to the social gap in health expectancy has been estimated.⁴ Published work suggests that socioeconomic differences in health have not been reduced during the past decades, although the socioeconomic composition of the European populations has changed.

Before now, estimates of healthy life-years at the age of 50 years were seldom published. In addition to documenting the large between-country differences within the EU, the objective of our paper was to show, for the first time, how the new EU structural indicator healthy life-years can address the common Lisbon Strategy aimed at increasing the employment rate of older workers. Since the paper focuses on between-country differences, it identified the possible need for a different policy action and approach by each European member state. However, we agree that differences