Secondly, it is one of the most difficult parts of the retrospective studies to update patients’ files to the modern era. However, we have reviewed our pathological files according to the New International Staging System for Lung Cancer (1997).

Clinically, it is difficult to distinguish a second primary carcinoma from a metastatic lesion arising from a first tumor. To differentiate between second or multiple primary lung cancers and recurrence or satellite nodules, we used the criteria adopted by Antakli et al. [3]. In this regard, five patients with a history of lobectomy for contralateral lung cancer had a second primary lung cancer, because all had a different histology. We classified one of our patients having a synchronous contralateral lung cancer because he also had a biopsy proven different histologic malignancy.

The anastomosis between the tracheobronchial bifurcation and the bronchus intermedius is well described elsewhere [4]. In our study [1], we did not include the patients for whom we have performed carinal resection with lobar resection. For those patients, as the author well knows that following the first anastomosis between the trachea and the left main bronchus, the bronchus intermedius is anastomosed 1 cm below the initial anastomosis to the left main bronchus. We do not agree with the author’s claim that patients with poor pulmonary reserve for the pneumonectomy should have neoadjuvant therapy. In fact, as we well know that bronchoplastical procedures were introduced for patients with impaired pulmonary functions. However, pneumonectomy was contraindicated in our 80 patients and the outcome was not affected by the presence of preoperative contraindications to pneumonectomy and incomplete resection. Since the main adverse prognostic factor for patients with lung cancer is N2 disease, we agree with the author that for those patients other treatment modalities should be considered to achieve long term survival. We underline that sleeve lobectomy should be performed for patients without N2 disease who are anatomically appropriate regardless of whether they would tolerate a larger resection.

Finally, regarding the first sleeve lobectomy for a lung cancer, we know that it was reported in 1954 by Allison [5].

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Letter to the Editor

Detecting the Ademkiewicz artery: is it really necessary in everyday practice?

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Keywords: Cost-effectiveness; Radiology and radiologists; Socioeconomic issues; Computed tomography; Angiography

In the article by Nojiri et al. [1], the authors study 13 patients with aneurysms and 14 patients with dissection of the descending thoracic or thoracolumbar aorta, who underwent sophisticated combined method of aortography and intra-arterial contrast injection angiography (IA-CTA) to depict the artery of Ademkiewicz (arteria radicularis magna (ARM)). Their results are similar with results obtained by the groups from Osaka, Iwate and Sapporo (Japan), and published a few years ago [2—4].

Concerning procedural safety and improving procedural results there is no statistically significant difference between IA-CTA and general selective angiography (GSA) in the preoperative assessment of ARM.

Moreover, as the authors stated, the incidence of complications by GSA is much lower than IA-CTA.

In this era of evidence-based care and limited resources any intervention by necessity must be both clinically effective and cost-effective [5]. Unfortunately, all above-mentioned articles are fraught with several major flaws for surgical ‘real-world’, as follows:

1. The authors did not point out the metrics for analysis of efficient cardiovascular imaging which include relative cost of the different modalities; the relative strength of test performance characteristics; comparative availability of evidence for the individual modality; risk from the procedure; variance in local availability and quality; consideration of patient preferences and comfort.

2. The authors did not compare the target values for DSA and the target values for IA-CTA. That would be attainable if EVAR is considered as the only treatment option. With the assumptions that IA-CTA involves minimal risk and could lead to incorrect recommendations for treatment, DSA would always be more cost-effective than IA-CTA, if both endovascular aneurysm repair (EVAR) and open surgical repair (OSR) are considered as treatment options.

3. If, however, we assume that IA-CTA involves no risks and has diagnostic accuracy that is comparable to that of DSA, then IA-CTA would be more cost-effective than DSA. In terms of developing new imaging modalities, it is important that the new modality has a fairly low cost and high sensitivity for the detection of cardiovascular pathology. There is no evidence of such data and statistical approaches to provide valid information of that topic.

4. The study does not consider international health care circumstances such as the expertise of the radiologists and the availability of equipment. For that reason the...
presented imaging modality is in the same range as MR angiography and DSA, or could only be experimental.

5. In the current study the cost-effectiveness of an imaging modality that fulfills the target criteria with the currently used modality in a pragmatic empirical setting is not determined. In such setting the costs incurred by performing the imaging examination must include the confidence of the physician in the examination result, and the patients and/or the physicians preferred imaging modalities.

6. A final limitation is that the authors failed to assume that the society’s willingness to pay (i.e., amount of money society willing to pay for one additional QALY) could be defined.

Finally, the use of preoperative imaging modalities to depict the Adamkiewicz artery for the purposes of improving procedural safety is unnecessary in the era of thoracic endovascular aneurysm repair (TEVAR) and it is in controversy with published results by TEVAR trials, SVS Lifeline Registry and VA National Surgical Quality Improvement Programme.

References


Reply to the Letter to the Editor

Reply to Hudorovic

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We thank Dr Hudorovic [1] for the interest in our work [2] and for the comments.

Regrettably, there are two points of misunderstanding in his comments. We did not state that the incidence of complications by general selective angiography (GSA) is much lower than CT angiography with intra-arterial contrast injection (IA-CTA). It is quite opposite. We perform IA-CTA using a pig-tail catheter placed in the aorta. So it is obviously much safer than selective catheterization of the arterial branches. Another point is that we do not apply IA-CTA to all the patients with aortic aneurysms or dissections. We do IA-CTA only when an elective graft surgery is scheduled and the surgeons want to know the exact location of the Adamkiewicz artery to avoid spinal complications. We understand that the spinal cord injury (SCI) rate may be lower in patients treated by endovascular approach, and demonstration of the Adamkiewicz artery may not be required for endovascular treatment.

As shown in our work, we can get much higher concentration of the contrast material in IA-CTA compared with CT angiography with intravenous contrast injection (IV-CTA), which will help to depict small vessels more clearly. A system of combined digital subtraction angiography (DSA) and multi-detector-row CT (AXIOM Artis dTA: Siemens-Asahi Medical Technologies Ltd, Tokyo) is now commercially available and we introduced one to our hospital. We make good use of it in various intra-arterial procedures. Without this system, you can place a catheter in the aorta under portable DSA guide as we reported, or you can place the catheter under fluoroscopic guide and transfer the patient to the CT (preferably, multi-detector row helical CT) room to perform IA-CTA.

Concerning the cost, IA-CTA must be more expensive compared with IV-CTA or compared with DSA alone. We understand there are many different policies in medical economics according to the physicians, the institutions, or the countries. But, we believe as long as surgeons want to know the exact location of the Adamkiewicz artery, an examination with highly diagnostic accuracy and low risk is recommendable.

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