Comment to: saphenous vein characteristics evaluated using three-dimensional contrastless computed tomography before coronary artery bypass grafting

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We read with interest a recently published article titled ‘Saphenous vein characteristics evaluated using three-dimensional contrastless computed tomography before coronary artery bypass grafting’ by Maruyama and colleagues, which describes the usefulness of contrastless three-dimensional computed tomography (3D-CT) as a preoperative evaluation tool for the saphenous vein (SV) in coronary artery bypass grafting (CABG) [1]. The authors categorized abnormal SV branches into three categories: partial duplication, large accessory SVs, and complicated branches. They analyzed more than 100 patients and found that almost half of them had abnormal branches, revealing the frequency of abnormal SV branches. They concluded that contrastless 3D-CT is an objective preoperative evaluation method for SV, and is useful in avoiding unnecessary skin incisions. We would like to pay tribute to the efforts of the authors and agree with their conclusions.

Previously, we investigated the results of non-contrast 3D-CT SV evaluation in preoperative patients with CABG [2]. The results of our study, which included 54 patients, revealed that nearly 40% of the patients had SVs that were inappropriate for grafting. We concluded that non-contrast 3D-CT can provide accurate, objective, and reproducible high-resolution SV images with a slight increase in radiation exposure, and it is a useful modality for determining the appropriate graft harvest site.

Our results and conclusions were similar to those of the authors’. However, there are some differences in the proportion and distribution of SV abnormalities between our and

the authors’ results, probably due to the small number of samples in both studies. From the results of both the studies, it is clear that preoperative evaluation by 3D-CT helps determine the site of SV harvest and avoids unnecessary skin incisions.

We have only one objection to what the authors state. They state that their study is the first report to comprehensively evaluate the SV size and relevant anatomical variants using contrastless 3D-CT before CABG. However, our study was the first to examine the frequency of inappropriate SVs by preoperative non-contrast 3D-CT.

In conclusion, we hope that the usefulness of non-contrast 3D-CT will be widely recognized and will benefit patients undergoing CABG and evaluation of the SV.

Compliance with ethical standards

Conflict of interest The authors declare that they have no conflict of interest.

References

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