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followed the golden standard in this case and on this basis suggested how the diagnosis could be improved through further investigation.

In the second place, as far as we know, there are no guidelines about the use of post-processing software, therefore no legal issues are at stake in this case, and neither are ethical ones. Not only has no harm been done to the patient, but, more importantly, no harm could have been done.

Thirdly, there is growing literature in this field¹ about the great effectiveness of open source software as compared to the approved versions. Open source software is updated at a rate that exceeds by far that of software updates in the industry, which makes it a better and more reliable tool than the approved types.

Last but not least, it is the duty of the public service to adopt a resource with the best cost-effectiveness ratio. In this case the choice of software that is both open source and free of charge and that could guarantee the same, if not better, level of reliability than its approved and expensive version has been a responsible one, and should not be subject to criticism.

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Response to Commentary on 'The Wonders of New Available Post-analysis CT Software in the Hands of Vascular Surgeons'

With regard to the commentary on the article "The Wonders of New Available Post-analysis CT Software in the Hands of Vascular Surgeons" there are a few things we would like to highlight.

We agree with the authors that, before adopting post-processing software in clinical practice, some training is needed in order to prevent the misuse of such a delicate tool. We also agree with them that it should be mandatory to report the likelihood of a graft failure. We don't agree with them when they criticize the use of open source post-processing software, for the four reasons we give below.

First of all, we need to point out that the post-processing software has been used in order to further improve diagnosis, and not as the main instrument for primary clinical use. The authors

Reply to Letter Regarding the Comments on 'The Wonders of New Available Post-analysis CT Software in the Hands of Vascular Surgeons'

We feel obliged to reply to the letter regarding our previous comments on the use of open-source software for image post-processing, and explain our point of view some more. As we previously emphasized, post-processing software is very useful and can enhance insight in a patient's anatomy before and after endovascular aneurysm repair. In fact, detailed analysis using such technology may provide additional or alternative diagnoses and improve patient care. Naturally, a free software tool that can provide this added value is a great asset.

However, certification and approval for clinical use is mandatory throughout the western world. The developers of Osirix stated in their website “Warning: OsiriX, being a free open-source software (FOSS), is not certified as a commercial medical device for primary diagnosis. Hence, there are no FDA/CE-1 certifications. In US and Europe, you can only use OsiriX as a reviewing, research or teaching software, not for primary diagnostic, used in clinical workflow and/or for patient care”. Certainly, part of the cost associated with paid post-reconstruction software has gone into the certification for clinical use. Also, it has been previously published that different software programs can provide comparable reconstructions to a certain level, but differences occur at a more detailed level.¹

In the presented case report, and often in our practice, the information provided by post-processing is very influential and may change decisions and treatment radically. Usage of non-approved software for this purpose poses deontological issues in our view, even if usage of this specific software tool is moderately supported by literature. We do not doubt the quality and potential of Osirix open-source, but will prefer a CE-1 certified software for our patients.

Reference

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