Had my dear mentor and friend, the Canadian surgeon Pierre Grondin, been alive today he would have been surprised—or even shocked—to realize that, 45 years after he placed the tricuspid valve in the surgical arena, we heart surgeons are still debating which is the best repair technique [1].

In spite of all the known limitations of a retrospective analysis, the paper by Thomas Guenther et al. exemplifies one more good effort to clarify this issue [2].

In any case it is remarkable to see how the suture technique has withstood the pressure from the mighty medical industry in trying to sell prosthetic rings (more than 20 types are currently on the market). Now, more than ever, we have to be conscious of the interface between authorship, industry and science in order to avoid what has been defined as ‘business adopting the appearance of science’.

Although our practice has clearly evolved during this long period of time, from leaving the tricuspid valve untouched to the point of repairing any grade of tricuspid regurgitation (TR) we have unfortunately failed to find a clear answer to four important questions:

(1) Does the tricuspid valve behave the same way in cases of rheumatic mitral disease, as in cases of degenerative mitral disease?

(2) Why do so many rheumatic mitral or mitral and aortic patients, who had no TR at the time of surgery, develop severe TR in the long-term, despite a normally-functioning left side valve repair or replacement?

(3) Could preventive fixation of the tricuspid annulus at the time of the first operation be the answer to this problem? and

(4) When is the best time to re-operate those high-risk surgical cases?

If we want to help our patients, we will need to focus on those four issues, as surgeons at the Mayo Clinic have recently done in relation to the first question [3].

PS: I have some tips for those surgeons who, for various reasons, prefer a suture repair:

(1) With the patient under cardiac arrest and before doing the mitral repair or replacement, carefully place the two lines of sutures and, after releasing the aortic clamp, tie them at the end while testing the valve by flushing the right ventricle with saline.

(2) Try to keep the sutures buried into the annulus as much as possible by stitching back into it as close as possible to the previous exit point, and make sure that the first and last stitches clearly overlap both the anteroseptal and posteroseptal commissures.

(3) Always use a braided, synthetic 00 suture.

References

