Minimal invasive surgery in congenital heart defects: keeping sight of our priority

René Prêtre*

Department of Cardiothoracic Surgery, Zurich University Hospital, Zurich, Switzerland

* Corresponding author. Department of Cardiothoracic Surgery, Zurich University Hospital, Ramistrasse 100, CH-8091 Zurich, Switzerland. Tel: +41-44-2668001; fax: +41-44-2668021; e-mail: rene.pretre@kispi.uzh.ch (R. Prêtre).

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There is no doubt that a minimally-invasive approach—an endoscopic one in this month’s issue of the journal [1]—to repair a cardiac defect can lead to a quicker and more comfortable recovery. Although a hair-splitting statistical mind might contest the value of the comparison in Ma et al.’s article, by brandishing the nonrandomized nature of the design, it remains that their superior results are in line with many other groups on the matter [1, 2]. If the compared recovery periods can be influenced by non-blinded investigators, it is difficult to believe that the amount of blood transfused—a more objective parameter also significantly reduced in the endoscopic group—would be subject to the same flaw.

The surgical insult inflicted on an organism during an operation takes its toll in terms of body strain and, consequently, speed of recovery. Besides cardiopulmonary bypass (CPB), the cutting, burning, fracturing and stretching of tissues induce an additional repair process, mediated by inflammatory responses and cell regeneration, which consumes energy and reserves. Burns units scale the severity of the overall insult simply by measuring the surface and depth of the burn and obtain a direct and reliable indicator of prognosis and time of recovery [3]. The insult of our surgical incisions is more difficult to calculate because it is not spread across a measurable surface but distributed in depth through many different tissue layers. The burden on some of them is substantial: a single sternotomy might reach the equivalence of a long bone fracture.

But we are merely talking of the envelope of the body here. It is certainly noteworthy, especially in reference to its cosmetic aspect—but far away from our primary concern, which is the accurate repair of the heart defect. Ma and co-workers report an excellent outcome in 36 patients, in whom a restrictive ventricular septal defect (VSD) was closed endoscopically, and find mainly a discharge- and comfort advantage over the conventional approach highly enough in a field where patients can be cured conventionally, with no somatic sequel at all, and have so many years to live. Like many others, we are convinced but are prudent proponents of a minimally invasive—and often cosmetic—approach to correct some congenital heart defects [6]. Even more than their quick recovery, the avoidance of the incision cataloging these children as ‘cardiac suffers’ can have a major psychological impact on their future happiness and self-fulfilment in our societies resolutely turned towards the perfection of appearance. However, in considering such a program—or during its institution—one should never lose sight of our cardinal priority: the cosmetic must be achieved primarily on the heart, not on the skin.

REFERENCES