## Regarding "High-Risk Cardiac Surgery in Patients with Intravenous Drug Abuse and/or Active Hepatitis C or Human Immunodeficiency Virus Infection: An Ethical Discussion of Six Cases"

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During the drafting of one paper concerning the emergency treatment of femoral pseudoaneurysm (PSA) rupture in intravenous drug abusers (IVDA) with human immunodeficiency virus (HIV), we found, among latest articles, this extremely interesting manuscript of Gansera et al about the ethical, social, and economic aspects of cardiac surgery in this particular niche of patients.

We treated, for inguinal hemorrhage from chronic infected PSA, two HIV-positive IVDA with both femoral bifurcations and forearms involved, by means of deployment of covered stent grafts with hybrid technique. Drug abuse often leads to dramatic clinical pictures not easy to solve.<sup>1</sup>

To stop bleeding, we obtained a quick access to the vascular tree throughout a short surgical exposure in a healthy segment of the distal superficial femoral artery, reducing, at the same time, the complexity of open surgical correction and making life easier for both the surgeons and the health care workers involved in the operating room.

Writing the discussion of our paper, not yet in knowledge of this valuable document, we developed the same themes here reported.

What to do when we have to face so complex and difficult cases? Is it ethical to refuse care independently from the compliance of patients? And what about social costs for such marginalized individuals? And last but not least, what about the safety of the health care workers? These are enormous issues for those who work in the operating theater and there are no easy answers to such difficult questions.

In our experience, the absolute need for emergency surgery, when unstable hemodynamic conditions threaten a patient's life, paradoxically helped us throw our heart over the fence and to carry out surgery without any hesitation.

As things settled down, we asked ourselves what to do in IVDA asymptomatic patients or, on the opposite, in those who had already undergone surgery and in incurables.

Probably we would be more pragmatic, and a little bit less idealist, definitely postponing elective operation and avoiding unnecessary overtreatment or dangerous heroism.

When discussing such particular and complicated cases, health care workers security seems to be erroneously a secondary issue. As human beings, fear of HIV infections is justifiable although we are professionals and we are used to face many cumbersome situations.

When planning surgical treatment for HIV/AIDS patients, the surgical equipe should follow guidelines and adopt all safety procedures to avoid adverse effects such as barrier protection, protective eyewear, gloves, and water-impermeable gowns.<sup>2–4</sup>

Obviously, developing operative strategies to reduce invasiveness and risk of contamination for the members of the surgical team is mandatory. For example, in vascular surgery the increasing use of endovascular treatment allows us to reduce the need for open surgical repair in case of hemorrhage. <sup>5,6</sup>

The economic burden of these high-risk surgical procedures in such odd, erratic, and sometimes even criminal patients is another fundamental matter. The analysis should consider in a whole—not only the direct costs of the personnel and advanced materials but also the social price of advanced therapies, length of stay, treatments of complications, and readmissions. Mortality, morbidity, procedure time, blood loss, intensive cure, and hospitalization times are lower when less invasive procedures are preferred despite higher costs of devices.

Surely, we will find "devotes" of treatment at any price against partisans of absolute denial of treatment of this kind of patients.

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We are all aware of the difficulties involved in harmonizing those positions but as ever "in medio stat virtus."

If the core of Hippocrates oath is our promise, when we become doctors, to do everything possible to help our patients, not all the cases of HIV-positive IVDA patients or AIDS could be eligible for an elective treatment if they do not decide to make a change in their lifestyle. It's fundamental beginning a drug addiction treatment and recovery according to age, drug use history, and other medical or psychiatric conditions with the help of doctors, psychologists, social workers, counselors, or whoever offers addiction treatment services.

A completely different approach must be adopted in case of impelling conditions or evident emergency. In these cases no "ifs and/or buts" exist and our duty is to save lives and give almost a chance to everyone. The only exceptions to this diligence could be the treatment of "missions impossible" cases or patients in terminal conditions when the trespass of good clinical practice is unethical, dangerous, and waste of money.

In the end we must thank Gansera and all the invited colleagues for commentaries who have turned on the lights on a so delicate issue that can suddenly materialize in our everyday praxis.

## References

- 1 Coughlin PA, Mavor AID. Arterial consequences of recreational drug use. Eur J Vasc Endovasc Surg 2006;32(4):
- 2 Joint Working Party of the Hospital Infection Society and the Surgical Infection Study Group. Risks to surgeons and patients from HIV and hepatitis: guidelines on precautions and management of exposure to blood or body fluids. BMJ 1992;305(6865):
- 3 Linee-guida di comportamento per gli operatori sanitari per il controllo delle infezioni da HIV (6 settembre 1989). Available at: http://www.salute.gov.it/imgs/C\_17\_normativa\_894\_allegato.pdf linee-guida di comportamento-Ministero della Salute. Accessed on December 23, 2016
- 4 World Health Organization (WHO) (2003). Aide-Memoire for a strategy to protect healthworkers from infection with bloodborne viruses. Geneva: Department of Blood Safety and Clinical Technology, WHO; 2003. Available at http://www.who.int/injection\_safety/toolbox/en/AM\_HCW\_Safety\_EN.pdf. Accessed on December 23, 2016
- 5 George R, Przybojewski S, Theron S. Endovascular treatment of femoral artery pseudoaneurysm in a HIV-positive patient—a case report. Eur J Vasc Endovasc Surg 2007;34:249
- 6 Antoniou GA, Papas TT, Tsagkos I, et al. Endovascular stent-graft repair of bleeding common femoral artery pseudoaneurysm in intravenous drug users: a bridge to surgical reconstruction. Vasa 2014;43(6):473-476

