

# Renovascular hypertension: results in adulthood of renal autotransplantation performed in children—response to comments by Della Schiava and Lermusiaux

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Dear Editors,

Thank you for the opportunity to respond to the Letter to the Editors from Drs Della Schiava and Lermusiaux [1]. We greatly appreciate their interest in this topic and their questions.

Concerning the surgical technique, we took into account that we were publishing our article in a medical journal and, as such, considered that it would be inappropriate to go into technical details of the operative technique. Readers interested in technical details will find all of the essential elements in reference 10 of our paper [2].

The potential complications (buttock claudication, erectile dysfunction) mentioned in the letter are not observed when taking a hypogastric arterial graft in children. Unlike adults, infantile arterial plasticity allows rapid and efficient development of pelvic collaterality without any early or late clinical consequences. No claudication, no impotence, and no miscarriages have been observed in adults operated on during their childhood. We analyzed these points in a previous article [3] published in 2006. It should also be noted that all such analyses reported in the literature go in this direction.

Even in the case of bilateral lesions, only one hypogastric artery is harvested. Once the first reconstruction is completed, the second renal artery is repaired using a short segment of the superficial femoral artery, which itself is replaced by a saphenous vein segment. Pelvic collaterality is then preserved.

With respect to the risk of buttock claudication and erectile dysfunction, both articles mentioned by Schiava and Lermusiaux in their letter refer to hypogastric artery embolization in the case of aneurysm. These procedures are not comparable to the procedure discussed in our article.

To avoid the risk of secondary rupture by retrograde perfusion of the aneurysmal sac, the distal branches of the hypogastric artery are often embolized along their first few centimeters, which can alter the inter-hypogastric collaterality. This can lead to buttock claudication, impotence, or colic or cutaneous necrosis, especially in the elderly and atheromatous patients.

In the hypogastric sample for renal artery repair, branches are connected to the trunk. The more distal collaterals are not damaged and, very quickly, due to the infantile arterial plasticity one finds a homogeneous pelvic vascularization.

**Compliance with ethical standards**

**Conflict of interest** None to declare

## References

1. Della Schiava N, Lermusiaux P (2017) Comments on Chavent et al.: Renovascular hypertension: results in adulthood of renal autotransplantation performed in children. *Pediatr Nephrol*. doi:10.1007/s00467-017-3723-3
2. Chavent B, Duprey A, Lavocat MP, Fichtner C, Beraud AM, Albertini JN, Favre JP, Maillard N, Barral X (2017) Renovascular hypertension: Results in adulthood of renal autotransplantation performed in children. *Pediatr Nephrol*. doi:10.1007/s00467-017-3664-x
3. Barral X, de Latour B, Vola M, Lavocat MP, Fichtner C, Favre JP (2006) Surgery of the abdominal aorta and its branches in children: Late follow-up. *J Vasc Surg* 43:1138–1144

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