






Analysis of sexual dysfunction after abdominal aortic aneurysm repair with the type of surgical technique adopted

Análise da disfunção sexual após reparo de aneurisma de aorta abdominal com o tipo de técnica cirúrgica adotada

Vanessa Souza Silva Medrado¹ , Ednilson de Souza Teixeira¹ , Hideki Zimmermann Kamitani¹ ,
Domingos Sávio de Oliveira e Silva¹ , Leonardo Alves Santos¹ , Rodrigo Mendes² , Pedro Pereira Tenório¹ 

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Dear Editor,

The study published by Schmid et al., entitled “*Sexual dysfunction after open abdominal aortic aneurysm repair: 16 years’ experience in a quaternary center and literature review*”, highlighted how surgical repair of abdominal aortic aneurysms (AAA) can cause sexual dysfunction (SD), including retrograde ejaculation and erectile dysfunction (ED), in patients treated with different aortic reconstruction techniques.¹

The causes of SD may be psychological, organic, or pharmaceutical, and the main organic causes are of vasculogenic origin, linked to atherosclerotic lesions, cavernosa dysfunction, or veno-occlusive insufficiency. Studies such as those by Donato et al.² and Meller et al.³ indicate that ED shares risk factors with coronary artery disease (CAD), peripheral arterial disease (PAD), and diseases of the carotid artery.^{2,3}

Hypercholesterolemia, systemic arterial hypertension (SAH), smoking, and atherosclerosis contribute to vasculogenic ED.^{2,4} These factors may have influenced the results reported by Schmid et al.,¹ since the sample analyzed included patients with SAH, dyslipidemia, smoking, and diabetes mellitus, with varied risk factors. Although the study attempted to establish causal relationships between the comorbidities, the heterogeneous nature of risk factors, including psychological factors, was not fully explored.

The single-center nature of the study limited generalization of the results, as did exclusion of patients without regular follow-up, which could have introduced selection bias. The statistical analysis conducted was adequate, but there was no adjustment for factors such as age, comorbidities, and follow-up time, which are essential to correctly interpret the greater prevalence of ED among patients with an

aorto-bifemoral by-pass and of retrograde ejaculation among aorto-aortic by-pass patients. Moreover, the lack of a control group makes it difficult to interpret the results.

Notwithstanding, studies such as one by Dariane et al.⁵ suggest that endovascular aneurysm repair (EVAR) can reduce SD compared with open AAA surgery, because of reduced nerve injury and fewer changes to pelvic blood flow. The causes of SD may be disorders of excitation, orgasm, or ejaculation, ED, or vascular factors.³⁻⁵ The benefits of EVAR for preservation of sexual function are due to protection of nerves, but it can be compromised by complications such as fibrosis and inflammation.⁵

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¹Universidade Federal do Vale do São Francisco – UNIVASF, Paulo Afonso, BA, Brasil.

²Irmãdada Santa Casa de Misericórdia de São Paulo SP, Brasil.

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Correspondence

Pedro Pereira Tenório
 Av. da Amizade, 1900 - Bairro Sal Torrado
 CEP 48605-780 - Paulo Afonso (BA), Brasil
 Tel: +55 (81) 98792-7851
 E-mail: pedro.tenorio@univasf.edu.br

Author information

VSSM, EST, HZK, DSOS and LAS - Medical students, Universidade Federal do Vale do São Francisco.
 RM - Physician graduated, Escola Paulista de Medicina, Universidade Federal de São Paulo (EPM/UNIFESP).
 PPT - Post doctorate in pathology, Escola Paulista de Medicina, Universidade Federal de São Paulo (EPM/UNIFESP).

Reply Letter: sexual dysfunction after open abdominal aortic aneurysm repair: 16 years' experience in a quaternary center and literature review

Carta Resposta: disfunção sexual após correção aberta de aneurisma da aorta abdominal: 16 anos de experiência em um centro quaternário e revisão da literatura

Bruno Pagnin Schmid^{1,2} , Marcelo Vezzi Muce¹, Rodrigo Gonzales Bocos¹, Fábio Hüsemann Menezes¹

The authors are grateful for the comments received and honored by the opportunity to discuss the article's findings in even greater depth.

The lack of a control group is a limitation that is intrinsic to the study design, as is recruitment of patients from just one center, as explained in the Discussion section and mentioned in the Letter to the Editor.¹

Along similar lines, while the absence of stratification by risk factors within the groups treated with different aortic reconstruction techniques could constitute an additional limitation, arterial hypertension was observed in 99% of the patients in the study and smoking was present in 92%. As such, almost the entire sample under analysis was predisposed to arteriopathy.

Additionally, while the failure to pair for psychogenic factors involved in erectile dysfunction, as mentioned in the Letter to the Editor, could be a confounding factor worth considering, this is a less likely causal factor in a cohort of patients who have undergone open repair of abdominal aortic aneurysm, with clear anatomic interference affecting the pelvic arterial circulation and the hypogastric nerve plexus.

It should also be pointed out that the study sample included patients followed from 1995 to 2000, which

was a time when the concepts of preservation of the hypogastric artery were still in development. As pointed out in the letter, other studies have ratified endovascular abdominal aortic aneurysm repair as a technique with a lower incidence of sexual dysfunction when compared to open repair and have reaffirmed the importance of preservation of the hypogastric arteries.²⁻⁴

Finally, we highlight the importance of discussing sexual dysfunction as a potential complication during preoperative counseling with patients who are candidates for open repair of aneurysms of the aorta. Moreover, it is also relevant to investigate the possible influence of the type of aortic reconstruction configuration on the type of sexual dysfunction observed.

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¹ Universidade Estadual de Campinas – UNICAMP, Campinas, SP, Brasil.

² Hospital Israelita Albert Einstein – HIAE, São Paulo, SP, Brasil.

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Correspondence

Bruno Pagnin Schmid
Rua Dr. José Romeiro Pereira, 57 - Bairro Alto de Pinheiros
CEP 05446-060 - São Paulo (SP), Brasil
Tel.: +55 (19) 3521-7175 / (11) 94988-7000
E-mail: brunopschmid@gmail.com

Author information

BPS - Vascular and endovascular surgeon, Universidade Estadual de Campinas (UNICAMP); Interventional Radiologist, Hospital Israelita Albert Einstein (HIAE).
MVM - MD, Universidade Estadual de Campinas (UNICAMP).
RGB - Urologist, Universidade Estadual de Campinas (UNICAMP).
FHM - Vascular and endovascular surgeon; Associate professor and assistant physician, Department of Surgery, Division of Vascular Surgery; PhD in Surgery, Universidade Estadual de Campinas (UNICAMP).