

Department of Neurosurgery Faculty Papers

Department of Neurosurgery

9-24-2020

## In Reply: Access-Site Complications in Transfemoral Neuroendovascular Procedures: A Systematic Review of Incidence Rates and Management Strategies

Pascal Jabbour Thomas Jefferson University

Ahmad Sweid Thomas Jefferson University

Follow this and additional works at: https://jdc.jefferson.edu/neurosurgeryfp

Part of the Neurology Commons, and the Surgery Commons
<u>Let us know how access to this document benefits you</u>

## **Recommended Citation**

Jabbour, Pascal and Sweid, Ahmad, "In Reply: Access-Site Complications in Transfemoral Neuroendovascular Procedures: A Systematic Review of Incidence Rates and Management Strategies" (2020). *Department of Neurosurgery Faculty Papers*. Paper 141. https://jdc.jefferson.edu/neurosurgeryfp/141

This Article is brought to you for free and open access by the Jefferson Digital Commons. The Jefferson Digital Commons is a service of Thomas Jefferson University's Center for Teaching and Learning (CTL). The Commons is a showcase for Jefferson books and journals, peer-reviewed scholarly publications, unique historical collections from the University archives, and teaching tools. The Jefferson Digital Commons allows researchers and interested readers anywhere in the world to learn about and keep up to date with Jefferson scholarship. This article has been accepted for inclusion in Department of Neurosurgery Faculty Papers by an authorized administrator of the Jefferson Digital Commons. For more information, please contact: JeffersonDigitalCommons@jefferson.edu.

1	In Reply to the Letter to the Editor: "Access-Site Complications in
2	Transfemoral Neuroendovascular Procedures: A Systematic Review of
3	Incidence Rates and Management Strategies"
4	
5	
6	Ahmad Sweid, MD, <sup>1</sup> Pascal Jabbour, MD. <sup>1,*</sup>
_	
7	
8	<sup>1</sup> Department of Neurological Surgery, Thomas Jefferson University Hospital, Philadelphia,
9	Pennsylvania USA
10	

11	*Corresponding author:
12	
13	Pascal Jabbour, MD
14	Professor of Neurological Surgery,
15	Chief Division of Neurovascular Surgery and Endovascular Neurosurgery
16	Thomas Jefferson University Hospital
17	901 Walnut street 3 <sup>rd</sup> Floor
18	Philadelphia PA 19107
19	T:2159557000,
20	F:2155037038,
21	Email: pascal.jabbour@jefferson.edu
22	
23	
24	Running Title:
25	
26	Abstract word count: NA
27	Text word count: 263
28	Number of references:12
29	Number of figures and/or tables: 0 figures.
30	Number of videos: 0
31	
32	Keywords: Access Site Complications; Femoral Access; Pseudoaneurysm; Groin
33	Hematoma.
34	
35	

## 36 Co-authors email address, affiliations;

37	1.	Ahmad Sweid, M	D: Thomas	Jefferson	University.	ahmad.sweid@	iefferson.edu <sup>1</sup>
• ·			2, 111011140		e	annaans n era e	11101001110000

- 41 Disclosures
- 42
- 43 **Funding statement**: This research received no specific grant from any funding agency in

44 the public, commercial or not-for-profit sectors.

- 45
- 46 **Conflict of Interest**: Dr. Jabbour is a consultant for Medtronic and MicroVention. The other
- 47 author have no personal, financial, or institutional interest in any of the drugs, materials, or
- 48 devices described in this article.
- 49 Dr. Sweid reports no disclosures
- 50
- 51 Acknowledgments: None.

We greatly appreciate and thank the authors for their thoughtful comments and valuable real-life illustrations of femoral access site complications that complements our manuscript.<sup>1</sup> Case illustrations always enrich the manuscripts and convert complex concepts into simpler visual cues. The authors clearly show the sequelae and management of access site complications. When compared to the life-threatening neurovascular pathologies, one tends to underestimate such complications, especially if not exposed enough to them during training.

60 To simplify things, we usually convert complications into numbers and perform a comparative analysis to infer the significant difference between two modalities of treatment. 61 62 Regardless whether or not there is a statistical difference, although RCT clearly shows the 63 advantage of one modality over the other in our case (Radial approach favorable over 64 femoral approach), femoral access site complications are more serious, complex to manage, and pose a higher mortality rate when compared to radial complications.<sup>2-7</sup> For example, the 65 66 authors reported three case illustration of femoral access site complications requiring invasive or surgical intervention; a femoral pseudoaneurysm that required thrombin injection, 67 68 peripheral arterial occlusion that required surgical embolectomy, and groin hematoma leading 69 to a retroperitoneal hemorrhage requiring surgical reconstruction. Such complications are 70 easily avoided and managed in radial access; pseudoaneurysm (if detected early) requires 71 manual pressure, radial artery occlusion almost never causes hand ischemia due to the 72 collateral supply to the hand, and access site hematoma is confined to a small space that requires only manual compression.<sup>8-12</sup> 73

Finally, we should all be committed to one thing: providing the safest and mosteffective care to patients! Tailoring care to each patient is inevitable.

- 76
- 77
- 78

80		
81		
82	1.	Oneissi M, Sweid A, Tjoumakaris S, et al. Access-site complications in transfemoral
83		neuroendovascular procedures: a systematic review of incidence rates and
84		management strategies. Operative Neurosurgery. 2020.
85	2.	Jolly SS, Yusuf S, Cairns J, et al. Radial versus femoral access for coronary
86		angiography and intervention in patients with acute coronary syndromes (RIVAL): a
87		randomised, parallel group, multicentre trial. The Lancet. 2011;377(9775):1409-1420.
88	3.	Chalouhi N, Sweid A, Al Saiegh F, et al. Initial Experience with Transradial
89		Intraoperative Angiography in Aneurysm Clipping: Technique, Feasibility, and Case
90		Series. World Neurosurg. 2019.
91	4.	Khanna O, Sweid A, Mouchtouris N, et al. Radial Artery Catheterization for
92		Neuroendovascular Procedures. <i>Stroke</i> . 2019;50(9):2587-2590.
93	5.	Sweid A, Starke RM, Herial N, et al. Transradial approach for the treatment of brain
94		aneurysms using flow diversion: feasibility, safety, and outcomes. J Neurosurg Sci.
95	-	2019;63(5):509-517.
96	6.	Li Y, Chen SH, Spiotta AM, et al. Lower complication rates associated with
97		transradial versus transfermoral flow diverting stent placement. J Neurointerv Surg.
98	-	
99	7.	Weinberg JH, Sweid A, Khanna O, et al. Access Through the Anatomical Snuffbox
100		for Neuroendovascular Procedures: A Single Institution Series. <i>Oper Neurosurg</i>
101	0	(Hagerstown). 2020.
102	8.	Patel P, Haussen DC, Nogueira RG, Knandelwal P. The Neuro Radialist. Interv
103	0	Caralol Clin. 2020;9(1):75-86. Moushtouris N. Al Soisch F. Sweid A. et al. Transmidial Access for Newly Food and
104	9.	Mouchtouris N, Al Salegn F, Sweld A, et al. Iransradial Access for Newly Food and
105		Anonymente A Technical Note World Neuroguna 2010;121;6.0
107	10	Aneuryshis: A Technical Note. <i>World Neurosurg</i> . 2019;151:0-9.
107	10.	solution site to conventional radial coronary angiography <i>Angtol I Cardial</i>
100		$2018 \cdot 10(A) \cdot 242, 248$
110	11	2010, 17(4). 243-240. Danabaly SP Parnet I Portrand OF Patal TM Provention of Padial Artery
111	11.	Occlusion After Transradial Catheterization: The DRODHET II Randomized Trial
112		IACC Cardiovasc Interv. 2016;9(19):1992-1999
113	12	Petroglou D. Didagelos M. Chalikias G. et al. Manual Versus Mechanical
114	12.	Compression of the Radial Artery After Transradial Coronary Angiography: The
115		MEMORY Multicenter Randomized Trial IACC Cardiovasc Interv
116		2018·11(11)·1050-1058
117		2010,11(11),1000 1000.
11/		