# A case of radial arteriovenous fistula during coronary angiography

## To the Editor,

First of all, I would like to congratulate Görgülü et al. (1) who participated in the case study titled "A case of radial arteriovenous fistula during coronary angiography" published in your journal; Anadolu Kardiyol Derg 2013; 13: 181-2. Even though I agree with the authors on the fact that radial arterivenous fistula during transradial coronary angiography is such a rare event, I think it was too assertive to say that here have been three case reports up today" (2, 3). Literature on the iatrogenic radial arterivenous fistula cases reveals that in addition to surgical procedures, percutaneous approach that involves biocompatible coated stent are also being used for treatment (2).

Today, as was described in your case report, there are different approaches currently in practice for arterivenous fistula treatment. One of them is surgical approach which includes partial resection, ligation or treatment. The second and third approaches are the use of coated stent and performing compression together with ultrasoundgraphy, respectively. The last approach which I especially would like to talk about is rather more conservative method and includes long waiting periods for the affected regions to close spontenously. This is observed in a study by Kelm et al. (4) which reported fistulas to close by themselves within a year, in one out of the three transfemoral arterivenous fistula cases. In another study, after 200-day monitoring, fistulas were again reported to close without any external help in 81% of patients that developed AVF after transfemoral angiography (5).

As the literature suggested, I also personally prefer to give time for healing in patients especially those with fistulas that are benign, and do not lead to heart failure, venous hypertension, distal ischemia, or pain-like symptoms.

I would like to have much more detailed information from the authors of this case report. Have they observed any AVF-related pathologic condition such as heart failure, venous hypertension, distal ischemia or any other symptoms? Plus, why did they restrict the follow-up periods to be "at least 2 months"?

#### Barçın Özçem

Department of Cardiovascular surgery, Near East University Medical Faculty; Nicosia-Northern Cyprus

# References

- Görgülü S, Norgaz T, Sahingöz Y. A case of radial arteriovenous fistula during coronary angiography. Anadolu Kardiyol Derg 2013; 13: 181-2.
- Summaria F, Romagnoli E, Preziosi P. Percutaneous antegrade transarterial treatment of iatrojenic radial arteriovenous fistula. J Cardiovasc Med (Hagerstown) 2012; 13: 50-2. [CrossRef]
- 3. Yang JH, Gwon HC, Park JE, Song YB. Arteriovenous fistula of the wrist after transradial coronary intervention. Heart Lung 2012; 41: 203-6. [CrossRef]
- Kelm M, Perings SM, Jax T, Lauer T, Schoebel FC, Heintzen MP, et al. Incidence and clinical outcome of iatrogenic femoral arteriovenous fistulas: implications for risk stratification and treatment. J Am Coll Cardiol 2002; 40: 291-7. [CrossRef]
- Toursarkissian B, Allen BT, Petrinec D, Thompson RW, Rubin BG, Reilly JM, et al. Spontaneous closure of selected iatrogenic pseudoaneurysms and arteriovenous fistulae. J Vasc Surg 1997; 25: 803-9. [CrossRef]

#### Address for Correspondence: Dr. Barçın Özcem,

Yakın Doğu Üniversitesi Tıp Fakültesi, Kalp Damar Cerrahisi Anabilim Dalı; Lefkoşe-*Kıbrıs*  Phone: 3926751000 E-mail: drbarcinozcem@gmail.com Available Online Date: 04.02.2014

©Copyright 2014 by AVES - Available online at www.anakarder.com *D0I:10.5152/akd.2014.5318* 



# Author's Reply

# To the Editor,

We appreciate the comments regarding our case report entitled "a case of radial arteriovenous fistula during coronary angiography" (1). As we stated in our case report three different treatment strategies are currently recommended to heal femoral iatrogenic arterivenous fistula (AVF), which are surgical repair, implantation of covered stents, and ultrasound guided compression. Among them, surgical repair is indicated for patients with iatrogenic AVF (2). However, there is no clear-cut information how to treat radial iatrogenic AVF. All three patients in the literature with iatrogenic AVF were treated surgically. Although our case report was published in 2013, it was written in 2011. We should have checked the literature again during the revision process before it was finally ready for publication. The readers indicated two other cases with radial AVF which were published in 2012 (3, 4). In one of these cases the fistula was cured with a covered stent (3). The treatment strategies seems not different from those of femoral AVF.

To the readers curiosity we would like to inform that we do not observed any AVF-related pathologic condition such as heart failure, venous hypertension, distal ischemia or any other symptoms? The follow-up period was restricted to two months because it was the exact time point when the fistula was closed spontaneously and we did not consider any reason for further follow up due to the suspicion of reopening.

## Şevket Görgülü, Tuğrul Norgaz Department of Cardiology, Kocaeli Acıbadem Hospital, Acıbadem University; Kocaeli-*Turkey*

# References

- 1. Görgülü S, Norgaz T, Sahingöz Y. A case of radial arteriovenous fistula during coronary angiography. Anadolu Kardiyol Derg 2013; 13: 181-2.
- Perings SM, Kelm M, Jax T, Strauer BE. A prospective study on incidence and risk factors of arteriovenous fistulae following transfemoral cardiac catheterization. Int J Cardiol 2003; 88: 223-8. [CrossRef]
- Summaria F, Romagnoli E, Preziosi P. Percutaneous antegrade transarterial treatment of iatrojenic radial arteriovenous fistula. J Cardiovasc Med (Hagerstown) 2012; 13: 50-2. [CrossRef]
- Yang JH, Gwon HC, Park JE, Song YB. Arteriovenous fistula of the wrist after transradial coronary intervention. Heart Lung 2012; 4: 203-6. [CrossRef]

Address for Correspondence: Dr. Şevket Görgülü,

Acıbadem Üniversitesi, Kocaeli Acıbadem Hastanesi, Yeni Mahalle İnkilap Cad: 9 İzmit 41100; Kocaeli-*Türkiye* Phone: +90 262 317 44 44-4123 Fax: +90 262 317 44 00 E-mail: sevket5@yahoo.com **Available Online Date:** 04.02.2014