great arteries in patients with transposed great arteries who had a sternotomy redone in the Fontan operation.

If it is complicated to close the pulmonary antegrade flow during the Fontan procedure due to transposition of the great arteries, transcatheter intervention can be performed safely and effectively after the surgery.

Alper Güzeltaş, İbrahim Cansaran Tanıdır, Murat Saygı
Department of Pediatric Cardiology, Mehmet Akif Ersoy Cardiovascular Research and Training Hospital; İstanbul-*Turkey*

References

1. Karagöz T, Gülgün M, Demircin M, Aykan HH, Akın A. Transcatheter closure of antegrade pulmonary blood flow with Amplatzer muscular VSD occluder after Fontan operation. Anatolian J Cardiol 2014; 14: 565. [CrossRef]
2. Desai T, Wright J, Dhillon R, Stumper O. Transcatheter closure of ventriculopulmonary artery communications in staged Fontan procedures. Heart 2007; 93: 510-3. [CrossRef]

Address for Correspondence: Dr. Alper Güzeltaş,
İstanbul Mehmet Akif Ersoy Eğitim Araştırma Hastanesi İstasyon Mah. Turgut Özal Bulvarı No:11, Küçükçekmece, İstanbul-*Türkiye*
Phone: +90 212 692 20 00
Fax: +90 212 471 94 94
E-mail: alperguzeltas@hotmail.com
Available Online Date: 21.01.2015

DOI:10.5152/akd.2015.6045

Author`s Reply

To the Editor,

We would like to thank the authors of the letter for their interest about our paper entitled "Transcatheter closure of antegrade pulmonary blood flow with Amplatzer muscular VSD occluder after Fontan operation.", published in the September issue of The Anatolian Journal of Cardiology 2014; 14: 565 (1). In 1971, Fontan and Baudet described a surgical procedure for repair of tricuspid atresia that built on experimental and clinical research from the 1940s. Today, the Fontan procedure is the most commonly performed staged palliative surgical procedure in patients with single ventricle physiology to ultimately create a circulatory system driven by a single ventricle without passing the right ventricle (2). It has been performed to treat several complex congenital heart diseases, including tricuspid atresia, hypoplastic left heart syndrome, pulmonary atresia with intact ventricular septum, and double-inlet ventricle.

At the time of the Fontan procedure, it is necessary to remove all origins of supplemental pulmonary blood flow to avoid volume loading of the heart. However, this can result in acute reduction in ventricular preload and diastolic dysfunction in the early postoperative period (3). In addition, some studies reported that non-pulsatile pulmonary blood flow decreased capillary flow and increased vascular resistance (2). On the other hand, there is a risk of persistent pleural effusions or progressive ventricular failure in patients having forward flow from the ventricle to the pulmonary arteries after Fontan procedure (3). As a result, it is controversial as to whether additional sources of systemic to pulmonary artery flow are beneficial or not.

Transcatheter closure of accessory antegrade pulmonary blood flow is an alternative to surgery, because it is less invasive, easy to perform, reliable, and more comfortable (4, 5). Numerous kinds of devices are now commercially available for the closure. Petko et al. (4) showed that the off-label use of Amplatzer Septal or Ductal Occluders or an Amplatzer Vascular Plug for the closure was effective for the reduction of ventricular volume load and resolution of the pleural effusions, which can occur as a complication after cavopulmonary shunt or Fontan procedure. Desai et al. (3) also reported that the use of a Raskind Umbrella Occluder or Amplatzer Septal or ductal occluder for the closure was a safe and effective technique after cavopulmonary shunt or Fontan procedure.

In my opinion, an issue that is worthy of discussion may be the thrombotic problems in the author's case. Devices can be placed to the pulmonary artery band or pulmonary valve tissue or above the pulmonary valve (4). The place and approach for occlusion can be modified by patient anatomy and technical ease. By the way, if there is room between the pulmonary valve and device, the stasis of blood in the room can lead to formation of a thrombus. The thrombus is also possible for patients who have undergone surgical ligation of main pulmonary artery distally to the pulmonary valve, creating a pulmonary artery stump (6). In conclusion, we think that patients with a risk of thrombosis over time should be followed up more often in clinical practice, and anticoagulation may be considered in these cases.

Mustafa Gülgün[1], Tevfik Karagöz[2]
[1]Department of Pediatric Cardiology, Gülhane Military Medical Academy; Ankara-*Turkey*
[2]Department of Pediatric Cardiology, Faculty of Medicine, Hacettepe University; Ankara-*Turkey*

References

1. Karagöz T, Gülgün M, Demircin M, Aykan HH, Akın A. Transcatheter closure of antegrade pulmonary blood flow with Amplatzer muscular VSD occluder after Fontan operation. Anatolian J Cardiol 2014; 14: 565. [CrossRef]
2. Fredenburg TB, Johnson TR, Cohen MD. The Fontan procedure: anatomy, complications, and manifestations of failure. Radiographics 2011; 31: 453-63. [CrossRef]
3. Desai T, Wright J, Dhillon R, Stumper O. Transcatheter closure of ventriculopulmonary artery communications in staged Fontan procedures. Heart 2007; 93: 510-3. [CrossRef]
4. Petko C, Gray RG, Cowley CG. Amplatzer occlusion of accessory ventriculopulmonary connections. Catheter Cardiovasc Interv 2009; 73: 105-8. [CrossRef]
5. Tanamati C, Guimarães VA, Penha JG, Barbero-Marcial ML. Fontan postoperative complication: antegrade pulmonary flow. Rev Bras Cir Cardiovasc 2011; 26: 137-9. [CrossRef]
6. Madan N, Robinson BW, Jacobs ML. Thrombosis in the proximal pulmonary artery stump in a Fontan patient. Heart 2002; 88: 396. [CrossRef]

Address for Correspondence: Dr. Mustafa Gülgün,
Gülhane Askeri Tıp Akademisi, Pediyatrik Kardiyoloji Bölümü 06010 Etlik, Ankara-*Türkiye*
Phone: +90 312 304 43 93
Fax: +90 312 304 43 81
E-mail: mustafagulgun@yahoo.com, mgulgun@gata.edu.tr
Available Online Date: 21.01.2015

Basilic vein transposition should be the first option

To the Editor,

We have read with great interest the article, entitled 'Long-term patency of autogenous saphenous veins vs. polytetrafluoroethylene

(PTFE) interposition graft for prosthetic hemodialysis access,' published in The Anatolian Journal of Cardiology 2014; 14: 542-6. (1). The authors presented patency rates of saphenous veins and PTFE grafts for hemodialysis access. They obtained the result that an autologous saphenous vein could be chosen as a prosthetic hemodialysis access graft due its higher primary and secondary patency and lower complication rate and cost when compared with PTFE grafts. We congratulate the authors for these valuable results.

In this study, the authors also presented that the basilic vein transposition technique is a challenging surgical procedure, requires a large incision on the arm, and is difficult to do for the patient and surgeon. Basilic vein transpositions have been performed since 1976. There are many techniques for transposing basilic veins to superficially, like minimal invasive surgery, video-assisted surgery, and catheter-assisted surgery. With these techniques, basilic vein transposition can be performed with comfortable conditions for the patient and surgeon and does not require large incisions (2). The only technical challenge for basilic vein transposition is operating for obese individuals and accessing the fistula for hemodialysis. Otherwise, in the text, the authors present that upper arm bridge graft interpositions can be first preferable alternative for hemodialysis access after using the forearm superficial veins. According to the National Kidney Foundation, patients should be considered for transposed basilic vein fistula after using the wrist radiocephalic and elbow brachiocephalic fistulas. If upper arm bridge grafts are used before the basilic vein, performing the basilic vein transposition technique can be impossible or very difficult because of the inefficient mobility of the proximal basilic or axillary vein after occlusion of the bridge graft fistulas (3, 4).

In conclusion, as mentioned in the study, native arteriovenous fistulas have been recommended as a first option, with lower complication rates and costs, for forearm and upper arm fistulas, but we believe that basilic vein transposition is not a challenging technique using minimally invasive techniques, allowing an easy operation. After finishing autogenous forearm fistula chances, the transposed basilic vein should be the first operative technique, as recommended by the National Kidney Foundation, instead of bridge fistula with saphenous or PTFE grafts.

Şahin İşcan, Habib Çakır
Department of Cardiovascular Surgery, Katip Çelebi University İzmir Atatürk Training and Education Hospital; İzmir-*Turkey*

References

1. Uzun A, Diken Aİ, Yalçınkaya A, Hanedan O, Çiçek OF, Lafçı G, et al. Long-term patency of autogenous saphenous veins vs. PTFE interposition graft for prosthetic hemodialysis access. AnadoluKardiyol Derg 2014; 14: 542-6. [CrossRef]
2. İşcan S, Gürsu Ö, Etli M. Is basilic vein transposition now the first choice? Short-term results of a minimally invasive technique. Damar Cer Derg 2013; 22: 280-4. [CrossRef]
3. National Kidney Foundation. KDOQI Clinical Practice Guidelines and Clinical Practice Recommendations for 2006 Updates: Hemodialysis Adequacy, Peritoneal Dialysis Adequacy and Vascular Access. Am J Kidney Dis 2006; 48: 1-322.
4. Yüksel V, Halıcı Ü, Hüseyin S, Güçlü O, Canbaz S, Ege T, et al. Basilic vein superficialization for the hemodialysis vascular access. Turk Gogus Kalp Dama 2013; 21: 950-4. [CrossRef]

Address for Correspondence: Dr. Şahin İşcan,
Katip Çelebi Üniversitesi, İzmir Atatürk Eğitim ve Araştırma Hastanesi,
Kardiyovasküler Cerrahi, Karabağlar, İzmir-*Türkiye*
Phone: +90 505 488 20 90
E-mail: sahiniscan@hotmail.com
Available Online Date: 21.01.2015

DOI:10.5152/akd.2015.5997

Author`s Reply

To the Editor,

We are grateful to the authors for their interest and kind contribution to our study, published in The Anatolian Journal of Cardiology 2014; 14: 542-6. (1) entitled "Longterm patency of autogenous saphenous veins vs. PTFE interposition graft for prosthetic hemodialysis access.". When simple arteriovenous fistulas fail, the need for new, practical, and effective vascular access gains extra importance. The major aim of the further intervention should be to provide safe and comfortable access as soon as possible.

As mentioned by the authors, international initiatives and foundations recommend the basilic vein transposition (BVT) technique as a third-line vascular access point after performing simple radio-cephalic or brachio-cephalic anastomosis. These recommendations were clearly cited in our text. The reason for performing bridge graft interpositioning in our cohort was the predominance of obese and female patients, which were accepted as technical drawbacks by many surgeons. BVT surgery may be strongly predicted to fail or reveal an ineffective vascular access site in these types of patients due to the limited basilic vein length and excessive adipose tissue.

Saphenous veins are precious autologous grafts, and synthetic grafts were the predominantly used graft types in previous studies (comparing BVT with graft interpositioning). Even though this is our personal opinion, saphenous vein grafts may contribute to the final outcome if they are used as a first-line graft choice.

Adem İlkay Diken
Department of Cardiovascular Surgery, Faculty of Medicine, Hitit University; Çorum-*Turkey*

References

1. Uzun A, Diken Aİ, Yalçınkaya A, Hanedan O, Çiçek OF, Lafçı G, et al. Long-term patency of autogenous saphenous veins vs. PTFE interposition graft for prosthetic hemodialysis access. AnadoluKardiyol Derg 2014; 14: 542-6. [CrossRef]

Address for Correspondence: Dr. Adem İlkay Diken,
Hitit Üniversitesi, Çorum Eğitim ve Araştırma Hastanesi,
Kalp ve Damar Cerrahisi, Çorum-*Türkiye*
E-mail: ademilkay@gmail.com
Available Online Date: 21.01.2015

Subacute myocardial infarction due to long-term paint thinner and ecstasy abuse

To the Editor,

Substance abuse can cause death, as well as negative effects, on social life and is becoming more common among young people.