

(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.

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## 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. Işcan S, Gürsu Ö, Etili 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]

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## 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.

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## 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]

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## 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.

Ecstasy (3,4-methylenedioxymethamphetamine, MDMA) and paint thinner usage may lead myocardial infarction (MI). Hereby, we discussed a subacute anterior MI patient (28-year-old male) without a previous medical history, abusing paint thinner and ecstasy.

Our patient, flooring parquetry, used to inhale approximately 250 mL paint thinner with a towel a day for 15 years, take 2 pills of ecstasy a day for 5 years, and smoke 20 cigarettes a day for 15 years. On admission, he had crushing chest pain, and the physical examination was normal. Electrocardiography (ECG) revealed mild sinus tachycardia with poor R wave progression,  $\geq 1$  mm ST-segment elevation in leads V1-V4, and T wave inversion in leads V1-V6, DI-aVL. Following a loading dose of ticagrelor (180 mg) and acetylsalicylic acid (300 mg), he was taken to the catheterization laboratory. Coronary angiography revealed 95% stenosis at the proximal segment of the left anterior descending artery (LAD) and 80% stenosis at the mid-segment of the LAD. The right coronary artery and left circumflex artery were normal. After percutaneous transluminal coronary angioplasty, a drug-eluting stent was implanted into LAD lesions successfully. Tirofiban infusion was administered intravenously for 24 hours. Echocardiography showed a mild anterior wall motion abnormality, and the left ventricular ejection fraction was 50%. The consulting psychiatrist diagnosed him with substance abuse and antisocial personality disorder. His in-hospital course was uneventful, and he was discharged after 5 days without any complaint.

Ecstasy (MDMA) is a psychostimulant amphetamine derivative and increases the release of serotonin, dopamine, and noradrenaline by blocking reuptake transporters in neurons. Ecstasy makes people energetic, euphoric, sociable, and extroverted and can cause cardiac toxicity, including rhythm disturbances, MI, and sudden death. Coronary vasospasm, catecholamine-mediated platelet aggregation, increase in shear stress with subsequent rupture of asymptomatic atherosclerotic plaques, and increased myocardial oxygen demand can lead to amphetamine-induced myocardial ischemia (1). Sadeghian et al. (2) described a 24-year-old male using ecstasy who had two MIs in a 3-month period. While the coronary angiography was normal in the first episode, in the second one, a thrombus totally occluding the proximal segment of the LAD was shown. It was revealed that amphetamines increase endothelial tissue factor expression and activity and also inhibit tissue factor pathway inhibitor expression (3). These can lead to thrombus formation, causing acute coronary syndromes.

Paint thinner is a solvent and contains hydrocarbons, like toluene, xylene, N-hexane, and benzene. It is easy to access, especially in Turkey. The paint thinner that our patient used contained 74%-78% methylbenzene (toluene, phenylmethane). Toluene is oxidized by mono-oxidase enzymes in target tissues; then, extensive free radicals are released, causing tissue damage (4). Acute coronary syndrome due to paint thinner inhalation is not well known. Possible mechanisms include coronary vasospasm, arrhythmias, and thrombus formation (5).

As a conclusion, in patients with chest pain abusing ecstasy or paint thinner, acute MI should be considered. People should be informed that ecstasy and paint thinner abuse can be fatal.

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## References

1. Waksman J, Taylor RN Jr, Bodor GS, Daly FF, Jolliff HA, Dart RC. Acute myocardial infarction associated with amphetamine use. *Mayo Clin Proc* 2001; 76: 323-6. [CrossRef]
2. Sadeghian S, Darvish S, Shahbazi S, Mahmoodian M. Two ecstasy-induced myocardial infarctions during a three month period in a young man. *Arch Iran Med* 2007; 10: 409-12.
3. Gebhard C, Breitenstein A, Akhmedov A, Gebhard CE, Camici GG, Luscher TF, et al. Amphetamines induce endothelial tissue factor: role of dopamine receptor type 4. *Eur Heart J* 2010; 31: 1780-91. [CrossRef]
4. Halifeoğlu I, Canatan H, Üstündag B, İlhan N, Inanç F. Effect of thinner inhalation on lipid peroxidation and some antioxidant enzymes of people working with paint thinner. *Cell Biochem Funct* 2000; 18: 263-7. [CrossRef]
5. Velibey Y, Altay S, Terzi S, Yeşilçimen K, Gölcük Y, Günay E. Acute myocardial infarction associated with thinner abuse: Case report and literature review. *Clin Toxicol* 2013; 51: 725-6. [CrossRef]

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## An unknown side effect of isotretinoin: Pericardial effusion with atrial tachycardia

To the Editor,

Isotretinoin is a synthetic vitamin A derivative used in the treatment of acne vulgaris and other dermatologic disorders. Systemic isotretinoin therapy may cause some cardiac side effects, like atrial tachycardia (1), congenital heart disease, and cardiac remodeling (2), reported as case reports. A 26-year-old female presented to the emergency unit of with syncope after a long palpitation episode. Her physical examination was normal except for tachycardia. A 12-lead electrocardiogram revealed atrial tachycardia, and the heart rate was 149 beats/min. After a 25-mg intravenous injection of diltiazem hydrochloride bolus, the atrial tachycardia terminated and normal sinus rhythm was sustained. Her laboratory tests and chest X-ray were normal. Echocardiography revealed normal left ventricular function and pericardial effusion of 0.8 cm at posterior side, 0.9 cm at the right atrial side and 1.3 cm at the right ventricle side. Several atrial tachycardia episodes were detected on rhythm Holter. During the longest episode of atrial tachycardia, the heart rate was 149 beats/min. The patient had been on oral isotretinoin therapy of 0.5 mg/kg/day for the previous 4 months because of nodular acne and was not using any other medication. After consulting with a dermatology physician, isotretinoin was stopped. Holter analysis revealed whole-day sinus rhythm 2 months after the drug therapy was interrupted. Echocardiography revealed gradual regression of pericardial effusion at the follow-up.

Isotretinoin is the most effective treatment options for severe nodular acne, and it belongs to the first generation of synthetic 13-cis retino-