Reference

1. Sadr-Ameli MA, Saedi S, Saedi T, Madani M, Esmaeili M, Ghardoost B. Coronary slow flow: Benign or ominous? Anatol J Cardiol 2015; 15: 531-5. [CrossRef]

Address for Correspondence: Dr. Tahereh Saedi
Rajaei Cardiovascular, Medical, Research Center
Iran University of Medical Sciences, Tehran-*Iran*
Phone: +00982123922003
E-mail: taherehsaedi80@gmail.com

In stent restenosis after percutaneous coronary intervention

To the Editor,

I read the article entitled "High levels of HB-EGF and interleukin-18 are associated with a high risk of in-stent restenosis" by Jiang et al. (1) with great interest, recently published in Anatolian Journal of Cardiology 2015; 15: 907-12. The investigators reported that higher levels of heparin-binding epidermal growth factor-like growth factor (HB-EGF) and interleukin-18 (IL-18) are associated with a high risk of in-stent restenosis after percutaneous coronary intervention. Jiang et al. (1) demonstrated the significance of inflammation and higher HB-EGF and IL-8 levels for in-stent restenosis. However, because of some confounding factors, I would like to emphasize some important points to clarify the findings of this article.

First, lesion-related characteristics, including ACC/AHA classification, total occlusion, ostial lesion, and severity of calcification, have strong relationship with in-stent restenosis (2). In the present study of Jiang et al. (1), there are no data about these significant predictors of in-stent restenosis for both groups. Higher incidence of complex lesions and lesions with high risk for in-stent restenosis in higher HB-EGF and IL-8 levels may be a reason of higher in-stent restenosis for this group. Hence, the investigators should consider these factors to clarify the exact significance of HB-EGF and IL-8 levels for in-stent restenosis.

Second, the investigators did not report the treatment with some important medications that are known to prevent in-stent restenosis. Statins and renin–angiotensin–aldosterone system blockers reduce in-stent restenosis (3,4). Therefore, lower incidence of treatment with these drugs may be another reason for higher in-stent restenosis in patients with higher HB-EGF and IL-8 levels.

Finally, it has been demonstrated that regular exercise training significantly reduces in-stent restenosis after percutaneous coronary intervention in patients with acute myocardial infarction (5). The investigators should comment on presence or absence of exercise training for each group.

In conclusion, inflammation plays a significant role in the pathogenesis of atherosclerosis. However, to define higher HB-EGF and IL-8 levels as indicators of in-stent restenosis, lesion-related characteristics, medications, and regular exercise training should be taken into consideration.

Mehmet Eyüboğlu
Department of Cardiology, Special Izmir Avrupa Medicine Center; Izmir-*Turkey*

References

1. Jiang H, Liu W, Liu Y, Cao F. High levels of HB-EGF and interleukin-18 are associated with a high risk of in-stent restenosis. Anatol J Cardiol 2015; 15: 907-12. [CrossRef]
2. Hoffmann R, Mintz GS. Coronary in-stent restenosis - predictors, treatment and prevention. Eur Heart J 2000; 21: 1739-49. [CrossRef]
3. Yoshikawa M, Nakamura K, Nagase S, Sakuragi S, Kusano KF, Matsubara H, et al. Effects of combined treatment with angiotensin II type 1 receptor blocker and statin on stent restenosis. J Cardiovasc Pharmacol 2009; 53: 179-86. [CrossRef]
4. Kamishirado H, Inoue T, Sakuma M, Tsuda T, Hayashi T, Takayanagi K, et al. Effects of statins on restenosis after coronary stent implantation. Angiology 2007; 58: 55-60. [CrossRef]
5. Lee HY, Kim JH, Kim BO, Byun YS, Cho S, Goh CW, et al. Regular exercise training reduces coronary restenosis after percutaneous coronary intervention in patients with acute myocardial infarction. Int J Cardiol 2013; 167: 2617-22. [CrossRef]

Address for Correspondence: Dr. Mehmet Eyüboğlu
Özel İzmir Avrupa Tıp Merkezi, Kardiyoloji Kliniği
İzmir-*Türkiye*
Phone: +90 232 207 19 99
E-mail: mhmtybgl@gmail.com

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Author`s Reply

To the Editor,

Many thanks to the author for their important comments to our paper entitled "High levels of HB-EGF and interleukin-18 are associated with a high risk of in-stent restenosis" published in Anatolian Journal of Cardiology 2015; 15: 907-12 (1). In the study, we demonstrated that HB-EGF may be used to evaluate the severities of restenosis and coronary artery lesion and inflammatory responses may involve in the process of restenosis.

First, we collected data including demographic characteristics, medical history, location of the vascular stenosis, severity and type of the stenosis, location of the stent implantation, type of the stent, type of the balloon, blood flow grade (TIMI), time of coronary angiography, in-stent restenosis and its location, de novo stenosis, and second stent implantation (1).

The effect of regular exercise training was not evaluated (2). We agree this factor can provide complementary information. Therefore, this factor needs to be considered in future studies.

Wenwei Liu
Department of Cardiology, Hospital Affiliated to Hubei University of Arts and Science; Xiangyang-*P. R. China*

References

1. Jiang H, Liu W, Liu Y, Cao F. High levels of HB-EGF and interleukin-18 are associated with a high risk of in-stent restenosis. Anatol J Cardiol 2015; 15: 907-12. [CrossRef]
2. Lee HY, Kim JH, Kim BO, Byun YS, Cho S, Goh CW, et al. Regular exercise training reduces coronary restenosis after percutaneous coronary intervention in patients with acute myocardial infarction. Int J Cardiol 2013; 167: 2617-22. [CrossRef]

Address for Correspondence: Dr. Wenwei Liu
Department of Cardiology, Hospital Affiliated to
Hubei University of Arts and Science
Jingzhou Street 39, Xiangyang 441021-*P. R. China*
Phone: +8613476303275
E-mail: xfjh1975@gmail.com

Frequency of emergencies in adults due to unrecognized coarctation of the aorta

To the Editor,

Coarctation of the aorta is a congenital aortopathy with a narrowed aortic segment as the typical entity that is localized mostly between the left subclavian artery and the ligamentum arteriosum. The obstruction to aortic blood flow through this narrowed segment is serious, and emergency life-threatening complications may arise (heart failure, refractory arterial hypertension, hypertensive crisis, aortic complications including dissection or rupture, infective endocarditis, cerebrospinal hemorrhagic or ischemic complications, and cardiac arrest). Because the vast majority of coarctations are diagnosed and frequently corrected during childhood, native coarctations identified for the first time in adulthood are rare, especially when the adult presentation is emergent. However, the frequency of emergencies in adults due to previously unrecognized coarctation remains unknown (1). Thus, we provided this retrospective study based on a hospital database screen using the code for coarctation of the aorta - *Q* 25.1.

From a total of 2 105 000 inpatients (40 500 inpatients/year), there were 9 adults (34±19 years; 56% men) in the 52-year period (1960–2012) under the care of the University Hospital (catchment region of 19 235 km^2 and 2 019 804 inhabitants) because of emergencies in adulthood due to unrecognized and significant coarctation (upper–lower body blood pressure gradient and/or invasive peak to peak pressure gradient and/or Doppler systolic mean coarctation gradient ≥20 mm Hg and/or coarctation segment narrowing to 0–8 mm). The frequency of emergencies in adults due to unrecognized coarctation was once per 6 years and the types of emergency were as follows: acute heart failure (34% both genders), spinal complications (33% men), hypertensive crisis (22% women), and aortic complications (11% man). The mean age of adults in all emergencies due to unrecognized coarctation was 34±19 years, with a trend to be lower in men (25 years) than in women (46 years). Amongst women, 75% had a maternity history, all prior to the emergency diagnosis of coarctation. All 9 adults are still alive (recent age 54±20 years); significant cardiac residues persist in 44% and intra-cardiac metallic material is present in 33%.

Thus, the authors conclude that professionals in centers providing non-pediatric general cardiovascular services may see emergencies in adults due to unrecognized coarctation sporadically, on average, once every 6 years. Unfortunately, there are no relevant comparable data because this is the first cohort-based study (apart from case reports and necropsies). However, Oliver et al. (2) retrospectively found 4 adults with aortic complications due to known native mild coarctation during the 13-year period (1990–2002), which equates to a frequency of once every 3 years. Hannoush et al. (3) in his retrospective analysis of adults hospitalized in the 20-year period (1980–2000) for various health problems found 3 coarctations that had been diagnosed in adulthood representing a frequency of once per 6.7 years, ignoring manifestations.

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Radka Hazuková, Eva Čermáková[1], Miloslav Pleskot
Department of Cardiovascular Medicine 1, University Hospital Hradec Králové, Faculty of Medicine in Hradec Králové, Charles University in Prague-*Czech Republic*
[1]Department of Medical Biophysics, Institute for Statistical Software, Faculty of Medicine in Hradec Králové, Charles University in Prague-*Czech Republic*

References

1. Baumgartner H, Bonhoeffer P, De Groot NM, de Haan F, Deanfield JE, Galie N, et al. ESC Guidelines for the management of grown-up congenital heart disease (new version 2010). Eur Heart J 2010; 31: 2915-57. [CrossRef]
2. Oliver JM, Gallego P, Gonzalez A, Aroca A, Bret M, Mesa JM. Risk factors for aortic complications in adults with coarctation of the aorta. J Am Coll Cardiol 2004; 44: 1641-7. [CrossRef]
3. Hannoush H, Tamim H, Younes H, Arnaout S, Gharzeddine W, Dakik H, et al. Patterns of congenital heart disease in unoperated adults: a 20-year experience in a developing country. Clin Cardiol 2004; 27: 236-40. [CrossRef]

Address for Correspondence: MD, Ph.D, Radka Hazuková
Department of Cardiovascular Medicine 1
University Hospital, Sokolská 581
Hradec Králové, 500 05-*Czech Republic*
Phone: +420 495 833 249 Fax: +420 495 820 006
E-mail: radka.hazukova@seznam.cz
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