

# Drug eluting stents used less often in women than men

27 August 2012

Drug eluting stents (DES) are used less often in women treated with percutaneous coronary intervention (PCI) for coronary artery disease than men treated with PCI for the same condition, according to research presented today, August 25, at the ESC Congress 2012. The findings from a country-wide Germany registry were presented by Dr Martin Russ.

[Coronary artery disease](#) is still a leading cause of mortality and morbidity in Europe and worldwide. During treatment with PCI, cardiologists can use bare [metal stents](#) (BMS) or the newer DES. While they do not reduce mortality, DES are known to decrease the need for repeat target vessel revascularisation procedures compared to BMS, a major drawback of PCI compared to [coronary artery bypass grafting](#) (CABG).

The country-wide German registry, Arbeitsgemeinschaft Leitende Kardiologische Krankenhausärzte (ALKK) PCI registry, included 100,704 stent implantations between 2005 and 2009. The data revealed that women received a lower percentage of DES for every quarter of a year between 2005 and 2009.

The study also confirmed the smaller diameter of epicardial vessels in women.

"Cardiologists use a slightly but significantly lower percentage of DES than BMS when they treat women with PCI, compared to when they treat men," said Dr Russ. "This difference was found in all indications for which PCI was performed (stable angina and [acute coronary syndrome](#)). These results are even more remarkable given the smaller size of epicardial vessels in women, where DES are thought to provide an even more favourable long term result than BMS."

He added: "To our knowledge, except for our study, there are no data on the use of BMS and DES in a contemporary PCI register. A closer look

at the data reveals that the difference in the rate of DES implantation between men and women increases with age."

The investigators found that in 70 to 80 year olds, men were 2.8% more likely to receive DES than women. In subjects over 80, men were 4.6% more likely to receive DES than women. Dr Russ said: "While there were no differences regarding DES use below the age of 70, the differences over 70 were significant. However, more than 40% of procedures were performed in patients over 70. One reason for these findings of the lesser use of DES in women could be the fear of a higher incidence of bleeding complications in women with the need for longer duration of dual antiplatelet therapy."

He added: "Neither guidelines on PCI nor any randomised trial support the preference of DES in men, as women receive the same advantages from DES. Furthermore, DES are the treatment of choice in most angiographic and clinical scenarios."

Dr Russ concluded: "[Cardiologists](#) should question themselves whenever they use BMS instead of DES, especially in women, to see whether their decision is justified. The lower use of DES in women compared to men may be putting them at a disadvantage and result in poorer outcomes."

Provided by European Society of Cardiology

APA citation: Drug eluting stents used less often in women than men (2012, August 27) retrieved 2 May 2021 from <https://medicalxpress.com/news/2012-08-drug-eluting-stents-women-men.html>

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