**IMPACT OF STENT LENGTH ON NEOINTIMAL HYPERPLASIA AFTER RESOLUTE ZOTAROLIMUS-ELUTING STENT IMPLANTATION**

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Background: In bare metal and first-generation drug-eluting stents, stent length has been shown to correlate with subsequent restenosis or cardiovascular events. The purpose of this study was to assess potential impact of stent length on neointimal hyperplasia in the second-generation zotarolimus-eluting stent (ZES) implantation.

Methods: Prescheduled IVUS follow-up at 8-9 months regardless of symptom was performed in 146 de novo coronary lesions treated with single Resolute ZES. Cross-sectional narrowing (CSN) was defined as neointima/stent area. Neointimal obstruction was calculated as neointima/stent volume. Clinical, angiographic and IVUS variables with a P-value <0.20 on univariate analysis were inserted into multivariate models.

Results: Univariate regression analysis showed a significant positive correlation of stent length with max CSN (R=0.228, P=0.012), whereas an weak correlation with neointimal obstruction was not statistically significant (R=0.135, P=0.141).

In multivariate analysis, longer stent length was independently associated with higher max CSN (P=0.007). On the other hand, an association of stent length with neointimal obstruction did not reach statistical significance (P=0.059) (Table).

Conclusion: Pooled IVUS analysis of Resolute ZES identified stent length as an independent determinant of maximum lumen encroachment by neointima. In this population, however, this effect did not significantly impact the overall amount of neointima within the stent.

