

Impact of the Everolimus-eluting Bioresorbable Scaffold in Coronary Atherosclerosis

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Cluster Analysis

A K-mean cluster analysis was run using the segment name as a categorical variable and the change in percent atheroma volume (% PAV) as continuous variable. Two clusters were found, distributed as follows:

	Segmer	Segment name							
	LCX	LCX	LAD	LAD	RCA	RCA			
	distal	proximal	distal	proximal	distal	proximal	Scaffold	Total	
Cluster 1Count	8	7	5	7	12	10	9	58	
Number % within cluster Case number % within segment name	13.8%	12.1%	8.6%	12.1%	20.7%	17.2%	15.5%	100.0%	
	66.7%	53.8%	55.6%	77.8%	85.7%	71.4%	50.0%	65.2%	
% of total	9.0%	7.9%	5.6%	7.9%	13.5%	11.2%	10.1%	65.2%	
2Count	4	6	4	2	2	4	9	31	
% within cluster Case number of Case % within segment name	12.9% se	19.4%	12.9%	6.5%	6.5%	12.9%	29.0%	100.0%	
	33.3%	46.2%	44.4%	22.2%	14.3%	28.6%	50.0%	34.8%	
% of total	4.5%	6.7%	4.5%	2.2%	2.2%	4.5%	10.1%	34.8%	
Total Count	12	13	9	9	14	14	18	89	
% within cluster Case number of	13.5%	14.6%	10.1%	10.1%	15.7%	15.7%	20.2%	100.0%	
% within 18 months.Segment_n	100.0% ame	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
% of total	13.5%	14.6%	10.1%	10.1%	15.7%	15.7%	20.2%	100.0%	

It can be noticed that in nonintervened segments, most segments were in cluster 1. Moreover, treated segments were divided equally between clusters 1 and 2. The most prevalent segments in cluster 2 were treated segments (29.0% of cluster 2 members).

LAD, left anterior descending coronary artery; LCX, left circumflex coronary artery; RCA, right coronary artery.

	Cluster Number	N	Mean	Standard	Standard	Р
				deviation	error of the	
					mean	
Percent atheroma	1	58	43.59	9.99	1.31	.010
volume at 18 –mo	2	31	49.33	9.44	1.69	
Percent atheroma	1	58	49.42	11.01	1.44	.018
volume at 60-mo	2	31	43.88	8.89	1.59	
Change in percent	1	58	5.83	4.10	0.53	<.01
atheroma volume	2	31	-5.45	4.78	0.85	
Distance of case from	1	58	3.19	2.54	0.33	.16
its classification cluster	2	31	3.99	2.52	0.45	
center						

The changes in percent atheroma volume of the 2 clusters were the following:

Cluster 1 had a mean increase of $5.83 \pm 4.10\%$ in %PAV while cluster 2 had a mean decrease of $5.45 \pm 4.78\%$ in %PAV (P < .01). The mean intracluster distance of case from its classification cluster center did not differ between the 2 groups (P = .16).