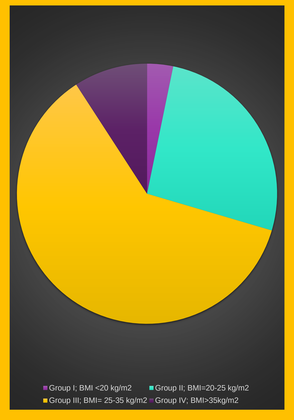
Impact of BMI on post-operative outcomes after TAVI

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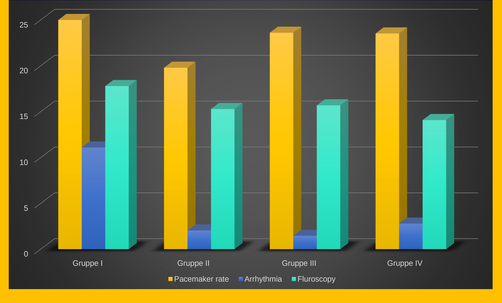
Objective

Obesity is an independent risk factor for cardiovascular disease and has a paradox effect on postoperative outcome after cardiac surgery. For patients who underwent transcatheter aortic valve implantation (TAVI), the prognostic roles of obesity and high body mass index remain controversial. Therefore, the aim of our retrospective study was to evaluate whether the obesity paradox exists in patients undergoing TAVI.

n	36	293	682	102	1113
Groupe	**1**	**2**	**3**	**4**	**gesamt**
Number of Deaths	3	21	35	3	62
Deaths %	8,33%	7,17%	5,13%	2,94%	5,57%
Vascular complications	1	15	23	4	43
Vascular complication %	2,78%	5,12%	3,37%	3,92%	3,86%
Number of Infections	6	40	67	17	130
Infection %	16,67%	13,65%	9,82%	16,67%	11,68%
Arrhythmia	4	6	10		
Arrhythmia %	11,11%	2,05%	1,47%	3,92%	2%
Pacemaker by discharge	9	58	161	24	
Pacemaker by discharge	25,00%	19,80%	23,61%	23,53%	23%
Defi by discharge	0	7	11	2	
Defi by discharge	0,00%	2,39%	1,61%	1,96%	2%
Fluroscopy time	17,8	15,3	15,7	14,1	15,5
KM agent in ml	188	158	156	158	158
Area dose	4600	5198	6438	10059	6381

Results

Extreme obesity was diagnosed in (9%) patients, (61%) patients were overweight, (3.5%) underweight and (26.5%) had normal weight. There was no difference between the groups in terms of 30-day all-cause mortality (Group 1: 7.14%, Group 2: 7.76%, Group 3: 5.4%, Group 4: 2.72%), postoperative wound complications and vascular complications. Increase in BMI was associated with higher procedural dose area. Decrease in BMI was associated with lower procedural dose area shorter fluoroscopy time, higher pacemaker rate and postoperative arrhythmia.



Conclusion

Despite the well-documented adverse effects of increased body weight on health, overweight and obesity are not associated with higher vascular complications or higher mortality rate following TAVI when compared with normal weight. However, a decreased BMI has a negative impact on postoperative arrhythmia and pacemaker rates. The consequence of a higher dose rate in the overweight groups should be controlled in future studies.

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