



Diabetes is not associated with worse periprocedural and long-term outcomes in patients undergoing TAVI (POL-TAVI Registry)

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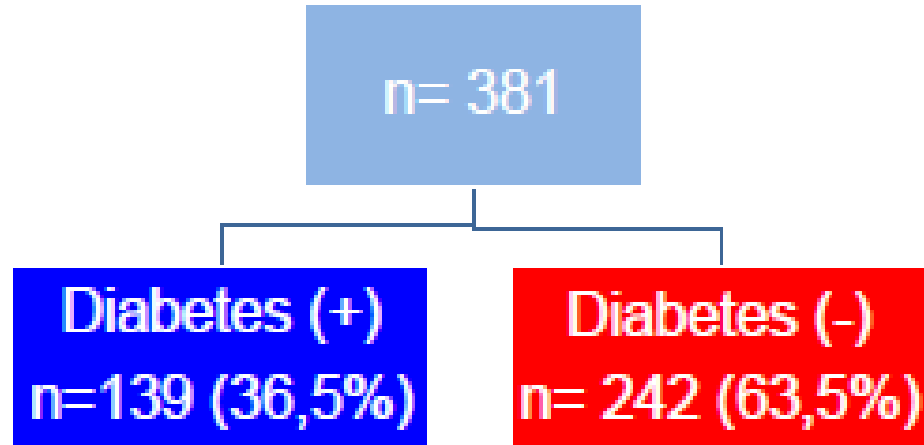
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AIM

Aim of the study was to evaluate the long-term outcomes of TAVI patients presenting with and without diabetes.

STUDY POPULATION

The registry enrolled 381 patients treated in 2013.



Demographic data

| Variable | Group A No diabetes | Group B Diabetes | p |
|-------------|------------------------|-----------------------|---------|
| Age [years] | 79,27 ($\pm 7,48$) | 77,80 ($\pm 7,17$) | 0,0226* |
| Weight [kg] | 71,60 ($\pm 13,87$) | 76,78 ($\pm 14,84$) | 0,0001* |
| BMI | 26,57 ($\pm 4,84$) | 28,84 ($\pm 4,98$) | <,0001* |
| Males | 111 (46,1%) | 55 (39,6%) | 0,2384 |

| Variable | Level | Group A No diabetes | Group B Diabetes | p |
|-------------------------------|--------------------------------|------------------------|-----------------------|---------|
| Prior interventions on valves | N | 241 | 139 | 0,8500 |
| | No | 220 (91,3%) | 128 (92,1%) | |
| | Yes | 21 (8,7%) | 11 (7,9%) | |
| PCI within 12 months | N | 241 | 139 | 0,3952 |
| | No | 183 (75,9%) | 100 (71,9%) | |
| | Yes | 58 (24,1%) | 39 (28,1%) | |
| TAVI main indication | N | 240 | 137 | 0,7205 |
| | Formal disqualification of AVR | 122 (50,8%) | 64 (46,7%) | |
| | High intervention risk | 114 (47,5%) | 71 (51,8%) | |
| | Refusal of surgery | 4 (1,7%) | 2 (1,5%) | |
| Critical preoperative status | N | 241 | 139 | 1,0000 |
| | Yes | 5 (2,1%) | 3 (2,2%) | |
| | No | 236 (97,9%) | 136 (97,8%) | |
| Intervention mode | N | 241 | 139 | 1,0000 |
| | urgent | 29 (12,0%) | 16 (11,5%) | |
| | planned | 212 (88,0%) | 123 (88,5%) | |
| LVEF [%] | N | 216 | 126 | 0,0214* |
| | Mean(\pm SD) | 53,81 ($\pm 11,47$) | 51,29 ($\pm 10,45$) | |

1 month follow-up

| Variable | Measure | Group A No diabetes | Group B Diabetes | p |
|--|-----------------|------------------------|---------------------|--------|
| Death (1m FU) | N | 205 | 119 | |
| | No | 184 (89,8%) | 107 (89,9%) | 1,0000 |
| | Yes | 21 (10,2%) | 12 (10,1%) | |
| Rehospitalization (1m FU) | N | 190 | 111 | |
| | No | 157 (82,6%) | 82 (73,9%) | 0,0774 |
| | Yes | 33 (17,4%) | 29 (26,1%) | |
| LVEF [%] at 1m FU | N | 108 | 77 | 0,5099 |
| | Mean(\pm SD) | 55,38 (\pm 8,75) | 54,25 (\pm 9,87) | |
| AVA [cm ²] at 1m FU | N | 65 | 44 | 0,3299 |
| | Mean(\pm SD) | 1,74 (\pm 0,37) | 1,84 (\pm 0,48) | |
| AVAI [cm ² /m ²] at 1m FU | N | 63 | 44 | 0,8667 |
| | Mean(\pm SD) | 0,99 (\pm 0,25) | 1,00 (\pm 0,23) | |
| Ao V max (m/s) at 1m FU | N | 78 | 58 | 0,1419 |
| | Mean(\pm SD) | 2,00 (\pm 0,40) | 1,91 (\pm 0,36) | |
| Mean AVG [mmHg] at 1m FU | N | 101 | 71 | 0,3944 |
| | Mean(\pm SD) | 9,55 (\pm 4,76) | 8,82 (\pm 3,38) | |
| Maximal AVG [mmHg] at 1m FU | N | 105 | 75 | 0,1193 |
| | Mean(\pm SD) | 17,00 (\pm 6,83) | 15,54 (\pm 5,61) | |

6 month follow-up

| Variable | Measure | Group A No diabetes | Group B Diabetes | p |
|--|-----------------|------------------------|----------------------|--------|
| Death (6m FU) | N | 174 | 96 | |
| | No | 147 (84,5%) | 76 (79,2%) | 0,3149 |
| | Yes | 27 (15,5%) | 20 (20,8%) | |
| Rehospitalization (6m FU) | N | 166 | 98 | |
| | No | 114 (68,7%) | 56 (57,1%) | 0,0637 |
| | Yes | 52 (31,3%) | 42 (42,9%) | |
| LVEF [%] at 6m FU | N | 105 | 53 | 0,2022 |
| | Mean(\pm SD) | 56,72 (\pm 10,17) | 54,47 (\pm 10,24) | |
| AVA [cm ²] at 6m FU | N | 66 | 32 | 0,5254 |
| | Mean(\pm SD) | 1,70 (\pm 0,37) | 1,70 (\pm 0,44) | |
| AVAI [cm ² /m ²] at 6m FU | N | 66 | 32 | 0,1690 |
| | Mean(\pm SD) | 0,97 (\pm 0,24) | 0,91 (\pm 0,21) | |
| Ao V max (m/s) at 6m FU | N | 74 | 37 | 0,1841 |
| | Mean(\pm SD) | 2,08 (\pm 0,51) | 1,95 (\pm 0,35) | |
| Mean AVG [mmHg] at 6m FU | N | 95 | 44 | 0,0906 |
| | Mean(\pm SD) | 10,43 (\pm 6,34) | 8,57 (\pm 3,63) | |
| Maximal AVG [mmHg] at 6m FU | N | 100 | 50 | 0,2313 |
| | Mean(\pm SD) | 17,94 (\pm 8,56) | 16,16 (\pm 5,97) | |

Logistic regression – death @ 6M FU

| Variable | OR per | OR (95% CI) | p-value |
|-------------------------------|-------------|------------------|---------|
| Gender | Male/Female | 0,73 (0,39;1,37) | 0,3329 |
| Diabetes | No/Yes | 1,43 (0,75;2,71) | 0,2748 |
| Prior interventions on valves | No/Yes | 1,88 (0,58;5,27) | 0,2738 |
| PCI within 12 months | No/Yes | 1,08 (0,52;2,15) | 0,8276 |
| Critical preoperative status | Yes/No | 0,08 (0,01;0,37) | 0,0015* |



Conclusion

Presence of diabetes did not increase short and long-term mortality as well as rehospitalization in unselected population of patients treated with TAVI.

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