

## THE IMPACT OF AGE ON THE OUTCOME AFTER ADVANCE XP SLING IMPLANTATION

### Hypothesis / aims of study

The transobturator retroluminal repositioning sling (AdVance Male Sling System) is well-known for being a safe and efficient tool in the therapeutic approach of male stress urinary incontinence. There is convincing evidence that the AdVance sling can also be used successfully in older patients. The AdVance XP Male Sling System was marketed in 2010 and includes multiple technical innovations compared to the AdVance sling. Still little is known about safety and efficacy of the AdVance XP sling in a particularly older patient collective. Aim of this prospective single center study was to analyze the impact of patient's age on the outcome of AdVance respectively AdVance XP slings.

### Study design, materials and methods

We prospectively analyzed a total number of 90 patients [n=39 (AdVance), n= 41 (AdVance XP)]. Different subgroups depending on the respective age were formed as follows: ≤65 years [n=4 (AdVance), n=9 (AdVance XP)], ≥65 years [n= 35 (AdVance), n=32 (AdVance XP)], ≥75 years [n=7 (AdVance), n=5 (AdVance XP)]. Pad use was evaluated after 3 months and maximum follow-up. Additionally, adverse events (AE) were classified using Clavien-Dindo-scale. Data was analyzed using Fisher's exact test, Chi squared test and Wilcoxon test. A p-value below 0.05 was considered statistically significant.

### Results

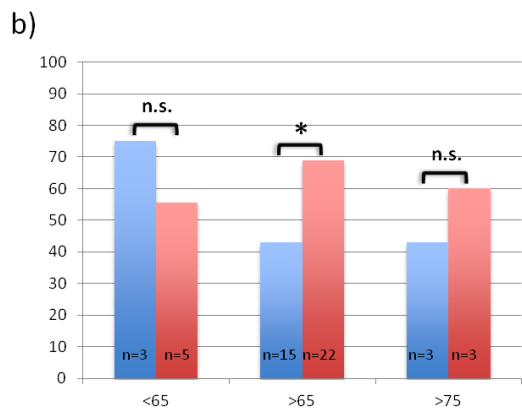
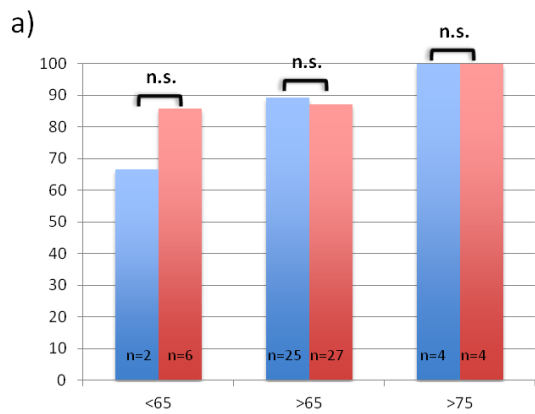
Median follow-up was 755 days (316 - 1006) for the AdVance sling and 385 days (155 - 801) for the AdVance XP sling. Results are summarized in figure 1. After 3 months, 89.3% (AdVance) vs. 87.1% (AdVance XP) of the patients older than 65 years were cured, whereas 10.7% (AdVance) vs. 12.9% (AdVance XP) failed or slightly improved (p=1,000). At maximum follow-up 42.9% (AdVance) vs. 68.8% (AdVance XP) of the patients older than 65 years were cured, whereas 57.1% (AdVance) vs. 31.3% (AdVance XP) failed or slightly improved (p=0.033). In contrast, statistical analysis of the subgroups younger than 65 years and older than 75 years showed no statistical differences after 3 months as well as after maximum follow-up. Analysis of AE revealed 25.0% (AdVance) vs. 11.1% (AdVance XP) mild AE for patients younger than 65 years, 20.0% (AdVance) vs. 21.9% (AdVance XP) mild-to-severe AE for patients older than 65a and 28.6% (AdVance) vs. 40.0% (AdVance XP) mild-to-moderate AE for patients older than 75 years respectively.

### Interpretation of results

The AdVance XP shows better results in the longer-term follow-up of patients in the age group of 65 to 75 years. In our cohort, no statistical benefit could be proven for the subgroups of patients being younger than 65 or older than 75 years.

### Concluding message

The results of the present study provide first evidence that the Advance XP Male Sling System is a safe and efficient therapeutic option in older patients but further studies with greater numbers of included patients are crucial to further elucidate this topic.



**Figure 1:** Cure rates depending on pad usage after 3 months (a) and after median last follow-up (b) for AdVance (blue) and AdVance XP (red) sling respectively (\*:  $p < 0,05$  AdVance vs AdVance XP; n.s. = not significant).

Disclosures

**Funding:** none **Clinical Trial:** Yes **Public Registry:** No **RCT:** No **Subjects:** HUMAN **Ethics Committee:** Ethics Committee Ludwigs-University **Helsinki:** Yes **Informed Consent:** Yes