

## VISUALIZATION OF POLYPROPYLENE AND POLYVINYLIDENE FLUORIDE SLINGS IN PERINEAL ULTRASOUND AND CORRELATION WITH CLINICAL CONTINENCE OUTCOME

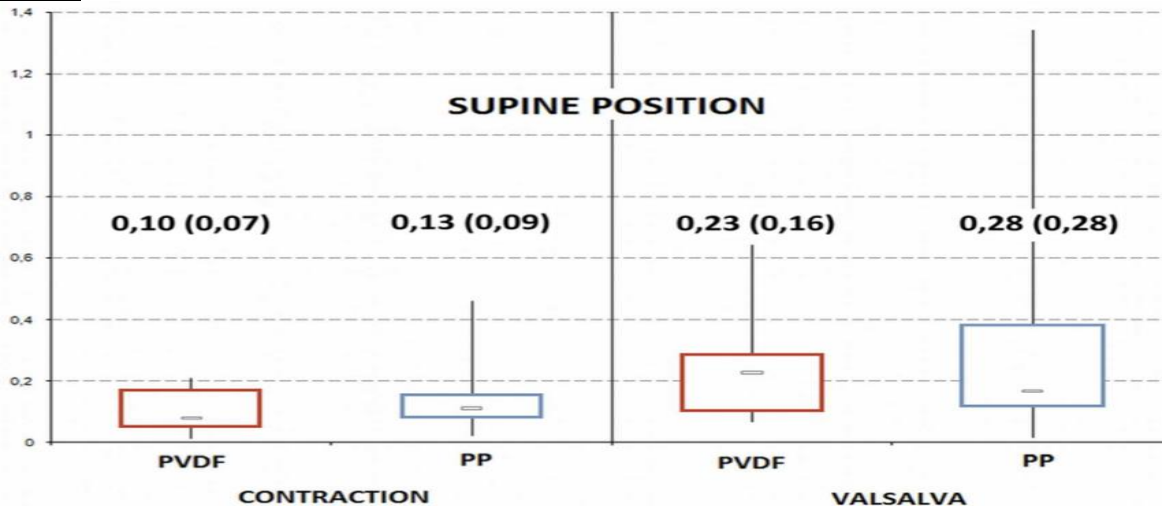
### Hypothesis / aims of study

Aim of this study was to evaluate morphology, functionality and differences in the resulting state of continence of two types of slings (PVDF, DynaMesh® SIS, Dahlhausen and Polypropylene, GyneCare TVT™, Ethicon) in vivo using perineal ultrasound (PUS) and to analyze the influence of certain sling characteristics on the resulting state of continence.

### Study design, materials and methods

- 47 women with two different kinds of slings (n=16 PVDF; n=32 polypropylene) were included.
- Comparison for sonographic visibility in gelatine
- Comparison by four sonographic criteria:
  - (1) Vertical stability of the sling position during Valsalva and contraction; (2) distance "sling – urethra"; (3) curling and width of the sling; (4) condition of the selvages
- Influence of these criteria as well as differences between the slings on the resulting state on continence using pre- and post-operative ICIQ scores

### Results



Movement of the PVDF- (red) and PP-slings (blue) in cm during contraction and during Valsalva, measured in supine position with means and standard deviations (in brackets) for each manoeuvre. PP-slings show higher peak values in all maneuvers.

### Interpretation of results

Visibility of the slings embedded in gelatine was equal.

PVDF-slings showed less vertical displacement, a smaller variance of displacement, a larger distance to the urethra and a significantly greater width.

All PVDF slings were straightly configured and had smooth edges, all PP slings were curled up and showed sharply pointing selvages.

There was no significant difference in the improvement of continence between the slings

None of these parameters showed significant influence on the resulting state of continence, even if there was a trend towards a better result with increasing distance from sling to urethra and increasing displacement of the sling during straining

### Concluding message

Conditions for sonographic evaluation are equal in both slings

All four criteria could be assessed using PUS and partly significant differences were found between the slings. No difference between the slings in the improvement of continence was established; no significant influence of the parameters was found for the resulting state of continence.

### Disclosures

**Funding:** None **Clinical Trial:** No **Subjects:** HUMAN **Ethics Committee:** EK University of Aachen **Helsinki:** Yes **Informed Consent:** Yes