INTRODUCTION:
Achieving a perfect anatomical and functional result from prolapse surgery is still a challenge. Anatomical studies suggested that half of the observed variation in anterior compartment support may be explained by apical support [1] and demonstrated the importance of a good apical support and paravaginal attachment. We used in this study a new single incision mesh kit which allows an anterior sacrospinous ligament (SSL) approach, with a specific device driving proximal mesh arms through the SSL. The distal arms of the mesh are anchored bilaterally in the obturator membrane with a specific introducer, the four arms are adjusted and secured.

OBJECTIVE:
To assess safety and to report medium-term results of a new surgical approach for a combined treatment of pelvic organ prolapse (POP) of anterior and medium compartments.

METHODS:
A longitudinal case series of 82 consecutive patients operated between January 2012 and March 2014 in four tertiary centres by 6 surgeons. The results were assessed by structured questionnaire of pelvic floor symptoms, and POPQ site specific vaginal examination preoperatively, and postoperatively at 6 weeks, 6 months, 1 year and then every year. POP-specific bother was measured on a visual analog scale (VAS). At the time of surgery all the patients had a stage 2 or greater (POP-Q) symptomatic cystocele and/or uterine prolapse. All patients underwent a Nuvia® procedure (CR BARD) with concurrent procedures that included posterior fascial repair (28/82, 34.1%), posterior mesh reinforcement (1/82, 1.2%), hysterectomy (9/57, 15.7%) and sling procedures (10/82, 12.2%) for symptomatic or occult stress urinary incontinence (SUI). Anatomic success was defined as prolapse stage < 1 (POPQ) for both anterior and apical compartment.

RESULTS:
Mean age was 69.2 +/- 8.6 years (41 to 88). 79/82 (96.3%) patients were postmenopausal. 14/82 (17%) had previous POP surgery. According to the POPQ, 22 patients had a stage 2 prolapse (27%), 52 a stage 3 (63%) and 8 a stage 4 (10%). Mean preoperative VAS bother score was 7.8 (6 to 9). Mean operative time was 72 +/- 35 min. There was one intraoperative complication: a cystostomy. Mean hospital stay was 4.5 days (2 to 15). 78/82 patients (88.5%) were available for at least 6 months follow-up. Mean follow-up was 8, 6 months (6 to 31). Anatomical success for both anterior and apical compartments, i.e. Ba and C/D point < 1, was 94% (5/82), with a patient satisfaction rate of 96.3% (79/82). Anatomical results are summarized in Table 1. Eight subjects (9.7%) experienced mesh exposure treated conservatively. Ten patients required further surgery for stress incontinence (12%), one for complication (infection), four for POP: 2 recurrences and two de novo posterior prolapse (untreated compartment). De novo dyspareunia did not occurred but only 5 patients were sexually active (6%).

CONCLUSION:
Despite limitations (longitudinal case series, no comparative group), the study provides the first clinical report on a new transvaginal mesh technique. Nuvia anterior is a safe procedure and achieve level I apical support and level II anterior coverage through a single incision. The most frequent complication was de novo stress incontinence, which is lower than in other studies [2]. Prospective and comparative studies and long term data are needed to specify more accurately the place of such device in current practice.

TABLE 1. Simplified POP-Q measurements at baseline and follow-up.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Baseline Mean POPQ Values (+/-SD) in cm at f.u.</th>
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<tbody>
<tr>
<td>Ba</td>
<td>+ 2.1 (+/- 2)</td>
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<tr>
<td>C/D</td>
<td>- 0.1 (+/- 3.9)</td>
</tr>
<tr>
<td>Bp</td>
<td>- 0.9 (+/- 2.1)</td>
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</tbody>
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REFERENCES: