953

Peyronnet B[1], Belas O[2], Capon G[3], Manunta A[4], Belas M[2], Pasticier G[3], Callerot P[5], Vincendeau S[4], Descazeaud A[6], Robert G[3], Fournier G[5]

1. *Rennes University Hospital,* ***2.*** *Pole Santé Sud, Le Mans,* ***3.*** *University Hospital of Bordeaux,* ***4.*** *University Hospital of Rennes,* ***5.*** *University Hospital of Brest,* ***6.*** *University Hospital of Limoges*

ROBOT-ASSISTED ARTIFICIAL URINARY SPHINCTER IMPLANTATION IN FEMALE PATIENTS : A MULTICENTER STUDY

Hypothesis / aims of study

The morbidity related to artificial urinary sphincter (AUS) implantation in women is usually considered as the drawback which has limited its widespread. In order to decrease this morbidity, several teams have recently reported the use of a robotic approach to implant the AUS in female patients. The aim of this study was to report the perioperative and functional outcomes of robotic AUS implantation in women.

Study design, materials and methods

All female patients who underwent robotic AUS implantation between 2013 and 2016 in five institutions were included in a retrospective study. The indication for AUS implantation was type III stressurinary incontinence and intrinsic sphincter deficiency defined as a combination of a low urethral closure pressure (< 30 cm H2O), loss of urethral mobility and a negative Marshall/Bonney test (urine leakage on straining or coughing not corrected by urethral support). The robot-assisted approach was the only approach used for AUS implantation in women during the study period in the five institutions involved. The primary enpoint was the functional outcome categorized as : cured (complete continence, i.e. no pads used), improved (decrease > 80% in number of pads per day or in urine leakage assessed through pad test) or failure decrease < 80% in number of pads per day or urine leakage assessed through pad test).

Results

Forty patients underwent robotic AUS implantation by ten surgeons during the study period (1 to 12 procedures/surgeon). Patients' characteristics are summarized in table 1. There were 6 intraoperative complications: 4 bladder neck injuries and 2 vaginal injuries. Nine patients experienced postoperative complications (22.5%) but only two were Clavien ≥3 (5%) : one AUS explantation due to vaginal erosion and one reoperation for device infection. After a median follow-up of 12 months, explantation of the AUS device was needed in one case (2.5%) due to vaginal erosion. Thirty-five patients were cured of their incontinence (87.5%), three were improved (7.5%) and the procedure failed in two patients (5%).

Interpretation of results

Robot-assisted AUS implantation in women may be less technically challenging than open AUS implantion which could help decrease surgical morbidity and could contribute to a wider use of this last resort treatment option in women with type III stress urinary incontinence refractory to suburethral slings.

Concluding message

This study is the first multicenter series asessing the outcomes of robotic AUS implantation in women. Despite a limited number of cases performed per surgeon, perioperative and functional outcomes appeared at least similar to those reported in large series of open AUS implantation from tertiary referral centers. Further data are needed tho confirm the findings of the present report.

Disclosures

Funding: none **Clinical Trial:** No **Subjects:** HUMAN **Ethics not Req'd:** retrospective **Helsinki:** Yes **Informed Consent:** Yes