

Peer Review File

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**Reviewer A**

**Comment 1:** Page 4, line 1-5 “Many studies have indicated that risk factors associated with SUI include obstetric episodes such as including the number of childbirths, surgeries related to childbirth, the weight of a newborn when the weight exceeded 4000 g, an affliction of asthma, chronic obstructive pulmonary disease, obesity, old age, surgical operations carried out within the small pelvis, and genetic factors[8]“ it is useless, it must be canceled

**Reply 1:** We have modified our text as advised (see page 5, line 3).

**Changes in the text:** Little research has closely examined factors affecting the prognosis of patients with SUI undergoing TVT surgery.

**Comment 2:** Page 4, line 8-9 “Predicting the outcome of TVT is important for the appropriate counselling of the patient about to undergo surgery” it is correct but a reference is needed. Here it is a good reference in counseling in female incontinence: 10.1007/s00192-018-3673-8

**Reply 2:** We have modified our text as advised (see page 5, line 8).

**Changes in the text:** Predicting the outcome of TVT is important for the appropriate counselling of the patient about to undergo surgery (8).

**Comment 3:** Page 5, line 4: “ofage” must be changed in “of age”

**Reply 3:** We have modified our text as advised (see page 6, line 5).

**Changes in the text:** accounts and assessments of age.

**Comment 4:** Page 5, line 7: You evaluated the Valsalva leak point pressure: please state if you evaluated the abdominal pressure or the bladder pressure (e.i. Valsalva leak point pressure by Pabd or Pves)

**Reply 4:** Valsalva leak point pressure by bladder pressure.

**Changes in the text:** No changes in the text.

**Comment 5:** Page 5, line 8-9: “Patients were investigated for the presence of urinary tract infections (UTIs) pre-surgery.” Should be changed as follow “Before surgery patients were investigated for the presence of urinary tract infections (UTIs)”

**Reply 5:** We have modified our text as advised (see page 6, line 10-11).

**Changes in the text:** Before surgery patients were investigated for the presence of urinary tract infections (UTIs).

**Comment 6:** Page 5, line 16-17: “Examinations of urine were performed after removing the catheter to determine if there was subsequent urinary tract infection.” Leave this part it is useless.

**Reply 6:** We have modified our text as advised (see page 6, line 19).

**Changes in the text:** We removed the catheter on the first day post-operation. Foley catheters were left in situ if patients were characterized as having voiding difficulty or urinary retention after removing the main catheter.

**Comment 7:** Page 5, line 20: you defined “symptoms... improved”, you have to define improvement.

**Reply 7:** We have modified our text as advised (see page 7, line 2-3).

**Changes in the text:** A reduction in the frequency and volume of SUI per day was defined as improvement.

**Comment 8:** Page 6, line 8: “postvoid” must be changed in “post void

**Reply 8:** We have modified our text as advised (see page 7, line 15).

**Changes in the text:** post void residual urine volume > 100 mL.

**Comment 9:** Page 6, line 10-11: “and exclusions were applied for patients with an unwillingness to participate in the study” delete this sentence, it is redundant that a patient that do not agree to participate to a study cannot be included in the study

**Reply 9:** We have modified our text as advised (see page 7, line 17).

**Changes in the text:** Exclusion criteria were as follows: women with urges of incontinence, overactive bladder, mixed incontinence, concomitant vaginal prolapse greater than stage 1 according to the POP-Q system, post void residual urine volume > 100 mL, any systematic disease, urinary infection, previous incontinence surgery, and current smokers.

**Comment 10:** All the pages from page 10 results as page 1: fix this problem.

**Reply 10:** We have modified our text as advised (see page 10-20).

**Changes in the text:** 10-20 pages

**Comment 11:** Page 11, line 4-15: The discussion is too long in the part where you discuss of the rule of hypercholesterolemia in other diseases... make it shorter

**Reply 11:** We have modified our text as advised (see page 13, line 12-21).

**Changes in the text:** When hypercholesterolemia exists, the microcirculatory system is activated by oxidative stress lead to atherosclerotic plaques (22-24). The presence of atherosclerosis affects blood supplies to wounds and affects the tissue at the healing site. Hypercholesterolemia impairs endothelium-derived nitric oxide (EDNO)

release while EDNO plays an important role in the regulation of angiogenesis (25). A reduction in blood supply caused by atherosclerosis or angiogenesis decreases wound healing rates and limits reaching desired goals for treatment. Also, from the perspective of general surgery, total cholesterol seems to have been associated with the risk of nosocomial infection in surgical patients.

**Comment 12:** Improve the part of MUCP and in limits you should report that you had very high MUCP this may be a bias. Indeed, your VLPP were all high.

**Reply 12:** We have modified our text as advised (see page 13, line 2-5).

**Changes in the text:** However, some studies had found no association between MUCP and postoperative outcomes. Therefore, the influence of MUCP was controversial and should be assessed by more detailed examinations in randomized-controlled trials.

**Comment 13:** You are comparing a group of 290 successful women with a group of 37 failure patients. I don't think this groups are statistically comparable due to the big differences in numbers.

**Reply 13:** Limited to the retrospective study, we only get such a result, that is, to present the results of the study to everyone and acknowledge the defects of the topic in discussion section. This paper intends to put forward a later research hypothesis, and then to further prove it. We have modified our text as advised (see page 14, line 11-13)

**Changes in the text:** Limited to the retrospective study, the number of patients between the two groups were big differences.

**Comment 14:** I am not convinced that hypercholesterolemia may have an impact on TVT results. Thus, I suppose a bias in patient selection. Moreover, did you evaluated a relationship with metabolic syndrome?

**Reply 14:** It may indeed be limited by the size of the sample, and the current data do support the result. The large sample size of the the relevant research needs to be further accumulated. Your opinion is very professional, but due to the large span of data before, the patients' blood glucose and blood pressure as well as the medication data are uneven missing, so far, no metabolic syndrome concept has been proposed, but focused on the effect of total cholesterol.

**Changes in the text:** No changes in the text.

### **Reviewer B**

**Comment 1:** Please explain how the tension of the mid-urethral tape was adjusted? Was an intraoperative cough test performed, or only before and after surgery? What individual pre-operative factors in patients were considered in the adjustment of sling

tension?

**Reply 1:** Generally, the sling is about 0.5cm below the middle of the urethra, and the tension of the sling is adjusted according to the contractility of the detrusor, Qmax, VLPP and MUCP. We didn't perform the intraoperative cough test.

**Changes in the text:** No changes in the text.

**Comment 2:** In order to enrich the discussion, I suggest adding other risk factors for therapeutic failure. Please consider citing the following studies.

**Reply 2:** We have modified our text as advised (see page 11, line 15-18)

**Changes in the text:** Different studies have shown that failure of urinary incontinence surgery may be associated with increased length of stay, BMI < 25, reduced postoperative peak urinary flow rate, decreased bladder outlet resistance after surgery or low serum albumin (< 3.5 ng/dl).