

Accepted Manuscript

Title: Mesh Free Laparoscopic High Uterosacral Ligament Suspension during Total Laparoscopic Hysterectomy for Uterine Prolapse

Author: Haider Jan, Vishalli Ghai, Stergios K. Doumouchtsis

PII: S1553-4650(17)31337-7

DOI: <https://doi.org/10.1016/j.jmig.2017.12.008>

Reference: JMIG 3368

To appear in: *The Journal of Minimally Invasive Gynecology*

Received date: 5-12-2017

Accepted date: 10-12-2017

Please cite this article as: Haider Jan, Vishalli Ghai, Stergios K. Doumouchtsis, Mesh Free Laparoscopic High Uterosacral Ligament Suspension during Total Laparoscopic Hysterectomy for Uterine Prolapse, *The Journal of Minimally Invasive Gynecology* (2017), <https://doi.org/10.1016/j.jmig.2017.12.008>.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



**Mesh Free Laparoscopic High Uterosacral Ligament Suspension during
Total Laparoscopic Hysterectomy for Uterine Prolapse**

Haider JAN, Vishalli GHAI, Stergios K DOUMOCHTSIS

Authors

**Haider JAN BSC, MBBS¹, MRCOG, Vishalli GHAI BMedSci MBBS MRCOG^{1*},
Stergios K DOUMOCHTSIS MSc, MPH, PhD, MRCOG^{1,2,3}**

¹ Department of Obstetrics and Gynaecology, Epsom & St Helier University Hospitals NHS Trust, London, United Kingdom, KT18 7EG

² Laboratory of Experimental Surgery and Surgical Research N.S. Christeas, Athens University Medical School, Athens, Greece.

³ St George's University of London, United Kingdom.

Conflicts of interest

Mr Stergios K Doumouchtsis reports other from Oxford University Press, other from Springer Nature, grants and other from Speciality European Pharma, other from Delta Health Limited, personal fees from Astellas, outside the submitted work.

Mr Haider Jan and Miss Vishalli Ghai report no conflicts of interest

Institutional review board/Ethics committee ruled that approval was not required for this study.

Corresponding Author: Miss Vishalli Ghai, Department of Obstetrics and Gynaecology, Epsom & St Helier's University Hospitals NHS Trust, Dorking Road, United Kingdom, KT18 7EG. Email: Vishalli.ghai25@gmail.com

ABSTRACT

STUDY OBJECTIVE: To demonstrate a mesh free approach for uterine prolapse during a hysterectomy.

DESIGN: Technical video demonstrating a mesh-free approach to uterine prolapse using a laparoscopic high uterosacral ligament suspension technique. (Canadian Task force classification level III)

SETTING: Benign gynaecology department at a University Hospital.

INTERVENTION: A 50 -year-old presented with irregular vaginal bleeding and grade 3 uterine prolapse. The patient was concerned regarding the use of mesh and erosion. After counselling, the patient agreed to a mesh free single procedure.

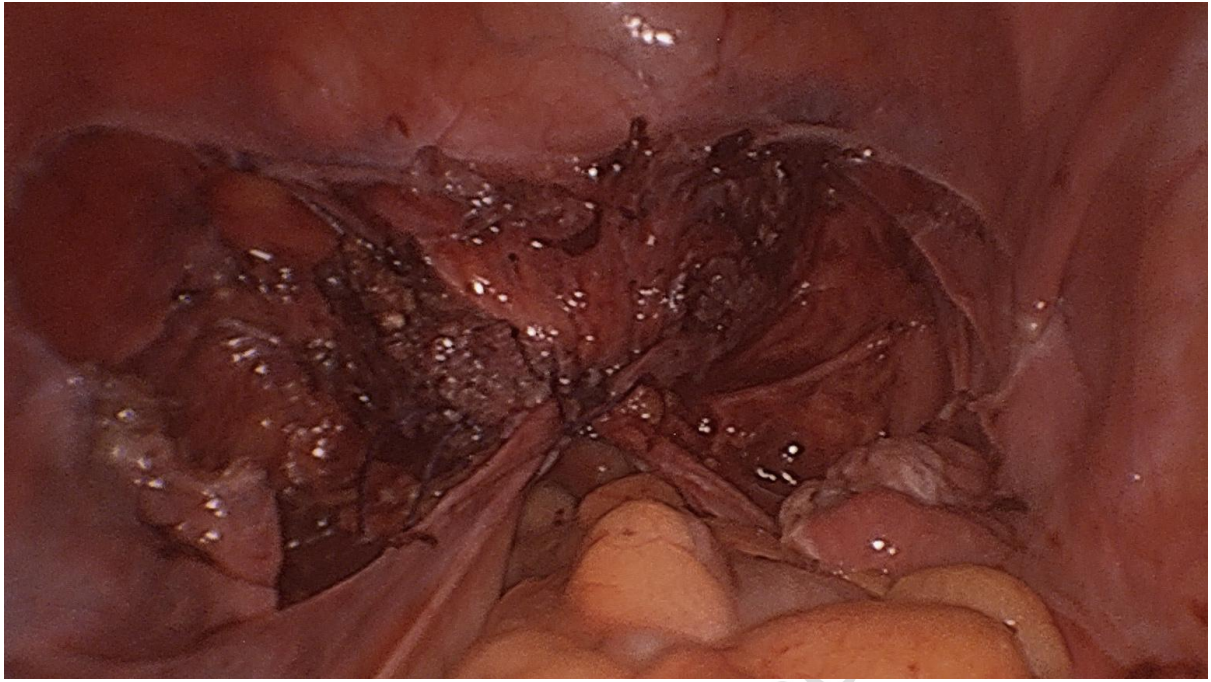
CONCLUSION: The use of mesh for the treatment of pelvic organ prolapse has become the subject of controversy and litigation. Complications of mesh erosion have resulted in the FDA reclassifying transvaginal meshes to high risk devices in 2016. [1] Mesh erosion risk is up to 23% [2] with hysterectomy and concomitant laparoscopic sacrocopopexy, and 3% with sacrohysteropexy. [3] We present an alternative laparoscopic approach of treating uterine prolapse with high uterosacral suspension during laparoscopic hysterectomy. Our method avoids use of mesh, sacrocervicopexy and morcellation, or an interval sacrocolpopexy. Although, high uterosacral ligament suspension can be performed vaginally it carries up to an 11% risk of ureteric injury. [4] In this video, bilateral ureterolysis is performed, prior to the hysterectomy, isolating the uterosacral ligaments. These are then suspended to the vaginal vault in a purse-string fashion using Vicryl 0 (polyglactin 910) and intracorporeal knot-tying. Post-procedure the vault is well supported with a vaginal length of 12 cm.

KEYWORDS: Pelvic organ prolapse; Mesh free; Laparoscopic vaginal vault suspension

References

1. Food and Drug Administration. FDA strengthens requirements for surgical mesh for the transvaginal repair of pelvic organ prolapse to address safety risks. Available at <https://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm479732.htm> Published 4th January, 2016. Accessed 6th October, 2017.
2. Tan-Kim J, Menefee SA, Lubner KM, Nager CW, Lukacz ES. Prevalence and risk factors for mesh erosion after laparoscopic-assisted sacrocolpopexy. *Int Urogynecol J.* 2011; 22:205-211
3. Gutman RE, Rardin CR, Sokol ER, Mathews C, Park AJ, Iglesia CB et al. Vaginal and laparoscopic mesh hysteropexy for uterovaginal prolapse: a parallel cohort study. 2017. *Am J Obstet Gynecol.* 216(1): 38
4. Barber MD, Visco AG, Weidener ACA, Munsden CL, Bump RC. Bilateral uterosacral ligament vaginal vault suspension with site-specific endopelvic fascia defect repair for treatment of pelvic organ prolapse. *Am J Obstet Gynecol.* 2000;183(6):1402-10

Accepted Manuscript



High uterosacral ligament suspension still_V2_bestsetConverted.png

Accepted Manuscript