Accepted Manuscript

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PII: S0090-4295(16)30093-0
DOI: http://dx.doi.org/doi: 10.1016/j.urology.2016.03.043
Reference: URL 19729

To appear in: *Urology*

Received date: 21-9-2015
Accepted date: 6-3-2016

Please cite this article as: Jorge Rioja, Esther Morcillo, José P. Novalbos, Miguel A. Sánchez, Federico Soria, Francisco Pérez, Idoia Diaz-Güemes, Maria Pilar Laguna, Francisco Miguel Sanchez-Margallo, Federico Rodriguez-Rubio Cortadellas, Laparoscopic Partial Nephrectomy with KTP Laser Versus Conventional Laparoscopic Partial Nephrectomy: an Animal Randomized Controlled Trial, *Urology* (2016), http://dx.doi.org/doi: 10.1016/j.urology.2016.03.043.

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Laparoscopic Partial Nephrectomy With KTP Laser Versus Conventional Laparoscopic Partial Nephrectomy: An Animal Randomized Controlled Trial

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Running head: KTP vs Conventional LPN: An Animal RCT

Abstract

Objective: To explore the feasibility, safety, and short-term results of KTP laser laparoscopic partial nephrectomy (KTP-LPN) versus conventional laparoscopic partial nephrectomy (C-LPN).

Material and methods: 30 large white female pigs were randomized to KTP-LPN or C-LPN. Laparoscopic radical right nephrectomy was performed, and an artificial renal tumor was placed in the left kidney in 3 locations. A week later, 15 pigs underwent C-LPN and 15 underwent KTP-LPN. All C-LPNs were performed with renal ischemia. A 120-W setting was used, without arterial clamping in the KTP-LPN group. Follow-up was done at day 1, weeks 3 and 6. Retro-