CLINICAL RESEARCH OFFICE OF THE ENDOUROLOGICAL SOCIETY

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MISSION

Through worldwide collaboration, CROES seeks to assess, using evidence based scientific methodology, the various aspects of clinical endourology.

VISION

By applying rigorous scientific evaluation to the field of clinical endourology, CROES will enable all urologic surgeons to bring to their patients the most effective and efficient care possible.

PROJECTS

- Global PCNL study
- Global URS study
- Global GreenLight™ Laser study
- Global Renal Mass study
- Global NBI study

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THE CLINICAL RESEARCH OFFICE OF THE ENDOUROLOGICAL SOCIETY GLOBAL GREENLIGHT™ STUDY: CLOSING REMARKS

Iris L. Maas and Carson Wong

Early in 2010, the Clinical Research Office of the Endourological Society (CROES) embarked on a project called the Global CROES GreenLight™ Laser Study (GLS). The aim of this study was to gain insight into the characteristics of patients presenting with symptomatic benign prostatic hyperplasia (BPH) who were scheduled for either GreenLight™ laser photoselective vaporization prostatectomy (PVP) or transurethral resection of the prostate (TURP). Previous newsletters have addressed the design of this study and the audit process that was performed to assure the quality of the data. Last year, this study was closed for new patients, and follow-up was completed. In this newsletter, we would like to share with you our closing remarks on the GLS.

Why even bother?

GreenLight™ laser PVP is currently a widely used alternative to TURP for the management of lower urinary tract symptoms (LUTS) secondary to BPH. There are many peer-reviewed publications that address this topic.[1,2,3] So, when there are already so much data readily available, why did CROES bother to set up yet another study on GreenLight™ laser PVP? One reason is that the development of lasers is evolving rapidly, requiring that knowledge be updated concurrently. To illustrate this, when we first started collecting data in 2010, many centers used the 80-W potassium-titanyl-phosphate (KTP) laser. As we approached the end of this study in 2012, more and more centers reported having converted form the low power laser to higher power devices (120-W or 180-W lithium triborate [LBO] laser).

From this observation, the question arises as to whether there are any outcome differences between the various powered lasers. Each of us, having an understanding of their properties, could hypothesize on some functional expectations of the differently powered lasers having an understanding of their properties. With the data in hand, however, comparative studies can be performed. In addition, there has yet to be a worldwide study on GreenLight™ laser PVP performed. Although the guidelines for BPH include recommendations for laser treatment,[4,5] CROES wanted to characterize which patients were actually being treated with GreenLight™ laser PVP.

Purpose

The GLS was established with the main objective of assessing current indications for GreenLight™ laser PVP in clinical practice and the treatment outcomes in terms of subjective and objective parameters. Its secondary objective was to assess the perioperative morbidity using the Clavien system and to define the risk factors for morbidity. To achieve these goals, data were collected from centers

around the world. Each participating center included their consecutive patients treated with GreenLight™ laser PVP or TURP during a 1-year period. These patients were followed for 1 year, during which they had a maximum of four visits. Baseline characteristics such as demographics and baseline comorbidities were recorded. Outcomes were measured with questionnaires (International Prostate Symptom Score and International Index of Erectile Function-5) and by means of uroflowmetry. Adverse events, both procedural and postoperative, were collected and classified according to the Clavien system.[6]

Process

From early 2010, many centers participated in this study. The CROES uses an online Web site to facilitate data collection. This system is one of the greatest advantages of CROES, because it provides easy access for all centers worldwide without requiring special software that is expensive and local. To safeguard the quality of data submitted, we have incorporated an audit at the end of the data collection phase. You can find a description of its purpose, method, and results in a previously published newsletter.[7] As every researcher knows, an audit alone is not enough to allow for data analysis. After the audit last year, the data cleaning phase began, which resulted in reliable data from 25 centers in 16 countries, most of which were in Europe and North America. There are available data on 713 patients with BPH who were treated with GreenLight™ laser PVP and an additional 239 patients who were scheduled for TURP. Of the laser patients, 247 were treated with the 80-W, 356 with the 120-W, and 110 with the 180-W laser unit.

What's next?

Presently, the initial two articles are in preparation and are pending submission. The first article covers a baseline description of BPH patients scheduled for GreenLight™ laser PVP. The second article includes the subjective and objective clinical outcomes and adverse events of the procedure. We will keep you updated on the status of these and other articles via our Web site.

On behalf of CROES, we would like to acknowledge and thank all urologists who have contributed their patients to this study. This study would not have been possible without their valued collaboration.

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- The Global Ureteroscopy Study, the Global Renal Mass Study, and the Global GreenLight™ Laser Study were closed in 2012.
- Ongoing project: The randomized study on Narrow Band Imaging *vs* White Light Imaging.
- New project: Multicenter randomized study Evaluating Irreversible Electroporation for the Ablation of Localized Unilateral Prostate Cancer.
- For further information, please visit: www.croesoffice.org or contact the Executive Director of CROES, Mrs. Sonja van Rees Vellinga (info@croesoffice.org).