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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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PROGRESS REPORT ON CROES STUDIES

Jean de la Rosette and Stavros Gravas

The Clinical Research Office of the Endourological Society (CROES) was founded during the World Congress of Endourology and SWL (WCE) 2008 meeting in Shanghai. One of the objectives of this office is to promote and support international clinical research in all fields of endourology, laparoscopy and emerging technologies under the umbrella of our Society by partnering with fellowship-based academic centers and urologists worldwide who are members of the Endourological Society.¹ Since then CROES has embarked on 5 studies: the Global PCNL study, the Global URS study, the Global Greenlight Laser study, the Global Renal Mass study and the Global NBI study for urothelial bladder cancer. At this occasion we would like to update you on the progress of the different studies and on possible future projects.

The first study launched was related to treatment of renal stones. CROES collected prospective data centrally on patients treated with percutaneous nephrolithotomy (PCNL). Each participating center collected data on consecutive patients for a full one-year period. Treatment outcome was evaluated. Post-procedure complications were graded according to Clavien. Centers from all over the world were invited to participate and the real life study was conducted following good clinical practice guidelines. For descriptive purposes the data were transferred to the SPSS program. A total of 96 centers collected data on nearly 6,000 cases treated by PCNL. During the WCE meeting in Chicago, in September 2010, 5 posters related to the PCNL study are being presented.

The PCNL study presentations at the occasion of the 2010 WCE meeting are:

- a. The Clinical Research Office of the Endourological Society (CROES) percutaneous nephrolithotomy (PCNL) global study: Indications, complications and outcomes in 5,803 patients by Jean de la Rosette, Dean Assimos, Mahesh Desai, Jorge Gutierrez, James Lingeman, Roberto Scarpa and Ahmet Tefekli on behalf of the CROES PCNL study group.

The **objectives** of this work are to assess the current indications for PCNL, perioperative morbidity and the treatment outcomes in terms of stone-free status. It was **concluded** that with a high success rate and a low major complication rate, PCNL is an effective and safe technique overall for minimally invasive removal of kidney stones

- b. Prognosticators of bleeding and operating time for percutaneous nephrolithotomy comparing different dilatation methods by Akito Yamaguchi, Andreas Skolarikos, Niels-Peter Noor Buchholz, Gonzalo Bueno Chomon, Michael Grasso, Pietro Saba, Stephen Nakada and Jean de la Rosette on behalf of the CROES PCNL study group.

The **objectives** of this analysis are to describe the bleeding and operating time in patients who underwent percutaneous nephrolithotomy using either telescopic/serial or balloon dilation. Another objective is to identify factors that may predict bleeding during percutaneous nephrolithotomy. It was **found** that prognosticators for presence of bleeding are size of access sheath, dilatation method, case load, stone load and operating time. Method of dilatation is related to operating time

- c. Tract dilatation in percutaneous nephrolithotomy: A global overview authored by James Lingeman, Tome Lopes, Kandasami Sangam, Peter Alken, Benjamin Silva Barroilhet, Christian Saussine, Lei Shi and Jean de la Rosette on behalf of the CROES PCNL study group.

The **objectives** of this study are to describe the choice of tract dilatation method for PCNL patients and to compare the clinical characteristics and outcomes of patients treated using telescopic/serial dilation or balloon dilation. It was **concluded** that dilatation of the PCNL tract is globally performed equally using telescopic or balloon dilators. The preference for telescopic dilators is greater in Asian countries and high-volume centers. Balloon dilatation results in more bleeding and longer operating times.

- d. Staghorn stones in the Global PCNL study: A comparison of outcomes between staghorn and non-staghorn stones by Mahesh Desai, Antonello De Lisa, Burak Turna, Luis Angel Rioja, Helena Walfridsson, Allesandro D'Addessi, Carson Wong and Jean de la Rosette on behalf of the CROES PCNL study group.

The **objectives** of this study are to describe the characteristics and clinical outcomes of patients who had staghorn stones and to compare the characteristics and clinical outcomes between staghorn and non-staghorn bearing patients. It was **concluded** that PCNL in staghorn is safe but results in a lower stone free-rate, longer hospital stay, longer operating time, higher level of postoperative fever, bleeding and blood transfusion than in non-staghorn patients.

- e. Postoperative complications and Clavien score assessment in percutaneous nephrolithotomy by Gaston Labate, Pranjal Modi, Francis Keeley, Luigi Cormio, Xiaochun Zhang, Michael Louie, Magnus Grabe and Jean de la Rosette on behalf of the CROES PCNL study group.

The **objectives** of this study are to identify common complications in PCNL and to compare the Clavien score classification in the Global PCNL study and the original Clavien Cohort of the year 2004. Moreover, we want to assess the risk factors for the development of perioperative morbidity after PCNL. It was **concluded** that PCNL results in complication in 1 out of 5 patients treated. The Clavien score has a positive association with American Society of Anesthesiologists (ASA) score, age, diabetes mellitus, cardiovascular disease, anticoagulant use and urinary tract infection.

The Global PCNL study was concluded on December 31, 2009, and in follow-up 4 studies have been initiated including: 1. Global URS study 2. Global Renal Mass study, 3. Greenlight Laser study and 4. NBI study for bladder cancer.

*Global URS study:*²

During the past years there has been an increased interest in flexible and semirigid Ureteroscopy (URS) as primary treatment for ureter stones and smaller-sized (lower pole) renal stones. URS is truly on the rise, most probably due to technical refinements of the (flexible) endoscopic equipment and because of more realism about the efficacy of the shockwave lithotripsy (SWL) therapy. The URS study was initiated in January 2010, and 104 centers have included nearly 4,000 patients since then. We will study possible (institutional) differences concerning indication for surgery, equipment used and maybe outcomes. Moreover, specific factors may influence treatment-related morbidity. This study is still open until the end of 2010 for centers to join.

*Global Renal Mass study:*³

During the past years we have witnessed an increased interest in renal masses. Two main reasons are responsible for this: the increasing diagnostic incidence which leads to incidental discovery of small renal masses and the development and consolidation of partial nephrectomy and minimal invasive surgical treatments, the latter including the laparoscopic approach and ablation techniques. This study was launched in January 2010, and 71 centers have included nearly 1,000 cases.

Specific patient and technique factors may influence outcome and treatment-related morbidity. In this prospective study we aim to assess on a global basis the indications, treatment modality and outcomes of instrumental treatment for renal masses including (laparoscopic/robotic) radical or partial nephrectomy

and (percutaneous/laparoscopic assisted) ablative treatments. Each center participating in this project will include during a one-year period all the patients treated at their site, with the diagnostic of renal mass. This study is also still open for centers to participate.

Global Greenlight Laser study:⁴

During the past two decades we have witnessed the incorporation of an increasing number of minimal invasive treatments for benign prostatic hyperplasia (BPH). Laser treatment is truly on the rise, most probably due to technical refinements of the technology and refinement of endoscopic equipment. There are some differences, however, concerning indication for surgery, experience, technique used and maybe outcomes. Moreover, specific factors may influence treatment-related morbidity. In this prospective study, we will study on a global base the indications and outcomes of high power system (HPS) greenlight laser treatment for BPH. Each center participating in this project will include during a one-year period the patients treated at their site. This study was initiated in April 2010, and at the moment 25 centers have included 200 patients.

Global Narrow Band Imaging study:⁵

This is the latest study coordinated by CROES. This is a randomized study and compares the recurrence rate at 1 year following narrow band imaging and transurethral resection of bladder (TURB) with white light transurethral resection of bladder cancer in patients with bladder cancer (NMIBC). The goal of this study is to include 1,000 cases in a one-year period. At present, 40 centers world wide have confirmed participation in this study.

Future projects:

Several other projects are in preparation including a study on urological imaging and on minimal invasive treatment for prostate cancer. CROES aims to be the premier research office in endourology and share the outcomes in evidence-based communications. Therefore, CROES has established a Publication Office including a professional team to support the preparation of manuscripts, posters and PowerPoint presentations. The Publication Office coordinates the different projects, communicates with the authors involved in the preparation of a manuscript, prepares figures and graphs, early identifies any delays in the preparation of papers in order to secure the unobstructed and timely flow of data publication, communicates with the Editorial Office of the different Journals, and guards the guidelines of publications set forth by the CROES.⁶⁻⁸

References

1. de la Rosette J. A platform for global endourological research. *J Endourol* 2009;23:1551–1553.
2. de la Rosette J, Gravas S. Global URS study:A prospective international observational study on indications and perioperative outcomes. *J Endourol* 2010;24:1–3.
3. Laguna P, Gravas S. Global renal mass study—A prospective international study on indications, treatment modalities, and outcomes. *J Endourol* 2009;23:1930–1931.
4. de la Rosette J, Gravas S. Greenlight laser for benign prostatic hyperplasia study: A prospective international observational study on indications and perioperative outcomes. *J Endourol* 2010;24:882–883.
5. de la Rosette J, Gravas S. A multi-center, randomized international study to compare the impact of narrow band imaging versus white light cystoscopy in the recurrence of bladder cancer. *J Endourol* 2010;24:660–661.
6. de la Rosette J, Gravas S. Data transfer agreement form for CROES research projects. *J Endourol* 2010;24:501–504.
7. de la Rosette J, Gravas S. Guidelines for CROES publications. *J Endourol* 2010;24:167–169.
8. de la Rosette J, Gravas S. Quality and transparency in CROES research projects. *J Endourol* 2010;24:317–319.