



ndt

NEPHROLOGY DIALYSIS TRANSPLANTATION

AN INTERNATIONAL BASIC SCIENCE AND CLINICAL RENAL JOURNAL

57th ERA-EDTA Congress Abstracts



INVITATION

Dear Colleagues,

Our 57th ERA-EDTA Congress will continue as planned on the originally scheduled dates of June 6-9, 2020 in a fully virtual manner.

As every year, it will be the time to celebrate goals and achievements as well as explore new paths and be fascinated by innovations and developments which influence the world of nephrology in a fully virtual, but still highly interactive, manner.

The Scientific Committee, chaired by Prof. Peter J. Blankestijn, has worked very hard to guarantee an outstanding scientific programme that could meet the expectations of virtual attendees and satisfy the nephrology community.

We are looking forward to sharing with all of you the experience of this extraordinary and unique virtual edition of the 2020 ERA-EDTA Congress.



Carmine Zoccali
ERA-EDTA President



Christoph Wanner
ERA-EDTA President-Elect

PAPER SELECTION COMMITTEE

ERA-EDTA is grateful to the following physicians for the work done in reviewing the abstracts submitted to this year's congress.

Chair

Maria Jose Soler Romeo, Spain

Core group

Danilo Fliser, Germany
Peter J. Blankestijn, The Netherlands

Reviewers

Daniel Abramowicz, Belgium
Marcin Adamczak, Poland
Dwomoa Adu, Ghana
Alberto Albertazzi, Italy
Carlo Maria Alfieri, Italy
Hans-Joachim Anders, Germany
Michele Andreucci, Italy
Theofanis Apostolou, Greece
Angel Argiles Ciscart, France
Mustafa Arici, Turkey
David Arroyo, Spain
Anders Åsberg, Norway
Justine Bacchetta, France
Ayse Balat, Turkey
Debasish Banerjee, United Kingdom
Franz Peter Barany, Sweden
Ali Basci, Turkey
Carlo Basile, Italy
Yuri Battaglia, Italy
Joachim Beige, Germany
Sibel Bek, Turkey
Vincenzo Bellizzi, Italy
Ariela Benigni, Italy
Sunil Bhandari, United Kingdom
Patrick Biggar, Germany
Manuel Bigotte Vieira, Portugal
Peter J. Blankestijn, The Netherlands
Detlef Bockenhauer, United Kingdom
Georg Boehmig, Austria
Davide Bolignano, Italy
Mario Bonomini, Italy
Jordi Bover, Spain
Vincent Brandenburg, Germany
Annette Bruchfeld, Sweden
Klemens Budde, Germany
Stephane Burtey, France
Giovanni Cancarini, Italy
Giovambattista Capasso, Italy

Ben Caplin, United Kingdom
Cristina Stela Capusa, Romania
Fernando Carrera, Portugal
Philippe Chauveau, France
Michal Chmielewski, Poland
Anders Christensson, Sweden
Naomi Clyne, Sweden
Pierre Cochat, France
Clemens D. Cohen, Germany
Ana Coloma Lopez, Spain
Giacomo Colussi, Italy
Christian Combe, France

Rosanna Coppo, Italy
Cécile Couchoud, France
Mario Cozzolino, Italy
Adamasco Cupisti, Italy
Andrew Davenport, United Kingdom
Simon Davies, United Kingdom
Martin De Borst, The Netherlands
Angel de Francisco, Spain
Peter de Leeuw, The Netherlands
Johan De Meester, Belgium
Natale Gaspare De Santo, Italy
Maria Alicja Debska-Slizien, Poland
Guy Decaux, Belgium
Pierre Delanaye, Belgium
Ajaya Kumar Dhakal, Nepal
Athanasios Diamandopoulos, Greece
Nada Dimkovic, Serbia
Hugo Diniz, Portugal
Tilman B. Drüeke, France
Magdalena Durlík, Poland
Jesus Egido, Madrid
Robert Ekart, Slovenia
Garabed Eknayan, U.S.A.
Agneta Ekstrand, Sweden
Kathrin Eller, Austria
Francesco Emma, Italy

Ekrem Ereğ, Turkey
Vincent Esnault, France
Pieter Evenepoel, Belgium
Fabrizio Fabrizi, Italy
Ken Farrington, United Kingdom
Bo Feldt-Rasmussen, Denmark
Manuel Anibal Ferreira, Portugal
Patrik Finne, Finland
Jürgen Floege, Germany
Jonathan G. Fox, United Kingdom
Joao M. Frazao, Portugal
Luc Frimat, France
Masafumi Fukagawa, Japan
Abduzhappar Gaipov, Kazakhstan
Maurizio Gallieni, Italy
Giovanni Gambaro, Italy
Ronald Gansevoort, The Netherlands
Loreto Gesualdo, Italy
Keith Gillis, United Kingdom
Matthias Girndt, Germany
Griet Glorieux, Belgium
Dimitrios Goumenos, Greece
Matthew D. Griffin, Ireland
Josep M. Grinyo, Spain
Maria Guedes-Marques, Portugal
Dieter Haffner, Germany
Rodrigo Hagemann, Brazil
Nynke Halbesma, United Kingdom
Richard Haynes, United Kingdom
Marc Hazzan, France
James Heaf, Denmark
Uwe Heemann, Germany
Olof Heimbürger, Sweden
Gunnar Heine, Germany
Rebecca Herzog, Austria
Luuk Hilbrands, The Netherlands
Radovan Hojs, Slovenia
Ewout Hoom, The Netherlands
Mads Hornum, Denmark
Zdenka Hruskova, Czech Republic
Reiko Inagi, Japan
Stefan Jacobson, Sweden
Michel Jadoul, Belgium
Philippe Jaeger, United Kingdom
Joachim Jankowski, Germany
David Jayne, United Kingdom
Ann Cathrine Johansson, Sweden
Laurent Juillard, France
Philip Kalra, United Kingdom
Mehmet Kanbay, Turkey
Zeynep Kendi Celebi, Turkey
Petar Kes, Croatia
Markus Ketteler, Germany
Marian Klinger, Poland
Jeroen Kooman, The Netherlands
Laetitia Koppe, France
Evangelia Kouidi, Greece
Rafael Kramann, Germany
Anneke Kramer, The Netherlands
Vera Krane, Germany
Raymond T. Krediet, The Netherlands
Andreas Kribben, Germany
Gurinder Kumar, United Arab Emirates
Ulrich Kunzendorf, Germany
Armin Kurtz, Germany
Mariusz Kusztal, Poland
David Lappin, Ireland
Maurice Laville, France
Jennifer Lees, United Kingdom
Christophe Legendre, France
Jens Leipziger, Denmark
Ewa Lewin, Denmark
Visnja Lezaic, Serbia
Karl Lhotta, Austria
Orfeas Liangos, Germany
Monika Lichodziejewska-Niemierko, Poland
Francesco Locatelli, Italy
Johannes Loffing, Switzerland
Carlo Lomonte, Italy
Merike Luman, Estonia
Iain MacPhee, United Kingdom
Francisco Maduell, Spain
Umberto Maggiore, Italy
David Mankanjuola, United Kingdom
Francesca Mallamaci, Italy
Jolanta Malyszko, Poland
Johannes F.E. Mann, Germany
Patrick Mark, United Kingdom
Leyre Martin Rodriguez, Spain
Alejandro Martin-Malo, Spain
Ziad Massy, France
Gert Mayer, Austria
Sandro Mazzaferro, Italy
Ellon McGregor, United Kingdom
Bjorn Meijers, Belgium
Edoardo Melilli, Spain
Paolo Mene', Italy
Piergiorgio Messa, Italy

P1390 **METHOD FOR AN EFFECTIVE INTRAOPERATIVE IDENTIFICATION OF PARATHYROID GLANDS IN HEMODIALYSIS PATIENTS WITH SEVERE HYPERPARATHYROIDISM FOR ADEQUATE PARATHYROIDECTOMY**

Renata Vakhitova¹, Sergey Zinchenko²

¹Kazan Federal University, Hemodialysis, Kazan, Russia and ²Kazan Federal University, Surgery 2, Kazan, Russia

Background and Aims: Secondary and tertiary hyperparathyroidism (HPT) in patients undergoing chronic hemodialysis is one of the most important problems of clinical nephrology.

The removal of altered parathyroid glands has a number of difficulties: the detection and

accurate allocation of the entire volume of the parathyroid glands due to their small size, similar structure to the surrounding tissues (thyroid gland, lymph nodes and adipose tissue) and complex anatomical location.

Usually parathyroid glands are located directly on the posterior surface of the thyroid lobes, but in some cases they can be located atypically. In addition, the parathyroid glands are often "immersed" in the tissue of the thyroid gland, which also makes their visualization difficult.

Isolation and differentiated intraoperative visualization of the parathyroid glands is extremely important for an adequate amount of surgical intervention.

Method: Seven dialysis patients with severe hyperparathyroidism were operated on using oral administration of 5-aminolevulinic acid for intraoperative imaging of the parathyroid glands. Secondary and tertiary hyperparathyroidism were diagnosed in patients with C5D stage CKD by a significant increase in the level of intact parathyroid hormone (iPTH) and increased parathyroid glands detected by ultrasound. In all patients, the level of iPTH before surgery was more than 1500 pg/ml. At the prehospital stage, in all patients, according to the results of ultrasound, enlarged parathyroid glands were revealed (the number of parathyroid glands in one patient was 4 +/- 2). For intraoperative identification of changed parathyroid glands in these patients, the oral administration of a solution of 5-aminolevulinic acid was used (given in 180 minutes before the start of surgery at a dose of 10-15 mg/kg body weight). Then the surgical field was irradiated with polarized blue light with a wavelength of 395-405 nm to record fluorescence. If fluorescent formations were detected in the area of irradiated tissues, they were removed with subsequent reimplantation of a less altered part of the hyperplastic parathyroid gland into the forearm region.

Results: Specific bright red fluorescence and luminescence of the parathyroid glands caused by special external sources of polarizing blue light during the operation were observed in all 7 patients. In each patient from 3 to 6 light portions of parathyroid glands were detected.

These lightning portions were isolated, removed, and in 3 patients the most unchanged areas of the parathyroid glands were autotransplanted into the forearm. In the postoperative period, all patients showed the decrease in the level of iPTH less than 300 pg/ml, a syndrome of "hungry" bone, which was corrected by the administration of calcium and vitamin D preparations. Histologically all the found tissues were characterized as tissue of the parathyroid glands. The duration of operations was 48 +/- 12 minutes.

Patients did not have any side effects indicated in the annotation to the drug.

Conclusion: Intraoperative fluorescence diagnostics of the parathyroid glands with preoperative oral use of 5-aminolevulinic acid is a simple and effective method of their visualization.

This method promotes adequate parathyroidectomy and allows to reduce the time of surgical intervention in hemodialysis patients.