

DE GRUYTER

CLINICAL CHEMISTRY AND LABORATORY MEDICINE

OFFICIAL JOURNAL OF THE EUROPEAN FEDERATION
OF CLINICAL CHEMISTRY AND LABORATORY MEDICINE



EDITOR-IN-CHIEF

Maria Plebani

DE
G

www.degruyter.com/ccfm

CLINICAL CHEMISTRY AND LABORATORY MEDICINE

Published in Association with the European Federation of Clinical Chemistry and Laboratory Medicine (EFLM)



CCLM is the official journal of the Association of Clinical Biochemists in Ireland (ACBI), the Austrian Society of Laboratory Medicine and Clinical Chemistry (ÖGLMKC), the German United Society for Clinical Chemistry and Laboratory Medicine (DGKL), the Hungarian Society of Laboratory Medicine (MLDT), the Italian Society of Clinical Biochemistry and Clinical Molecular Biology (SIBioC), the Portuguese Society of Clinical Chemistry, Genetics and Laboratory Medicine (SPML), the Royal Belgian Society of Laboratory Medicine (RBSLM) and the Slovenian Association for Clinical Chemistry and Laboratory Medicine (SZK KLM). *CCLM* is affiliated with the Australasian Association of Clinical Biochemists (AACB) and Société Française de Biologie Clinique (SFBC).

EDITOR-IN-CHIEF

Mario Plebani
Padova, Italy

ASSOCIATE EDITORS

Giuseppe Lippi
Reviews Editor
Verona, Italy
Philippe Gillery
Reims, France
Karl J. Lackner
Mainz, Germany
Bohuslav Melichar
Olomouc, Czech Republic
Deborah A. Payne
Denver, CO, USA
Peter Schlattmann
Jena, Germany
Jill R. Tate
Brisbane, Australia

EFLM LIAISON

Ana-Maria Simundic
Zagreb, Croatia

EDITORIAL BOARD

Ivan Brandslund
Odense, Denmark
Rossa Wai Kwun Chiu
Hong Kong, China
Sail Chun
Seoul, Korea
Eleftherios P. Diamandis
Toronto, Canada
Rajiv T. Erasmus
Stellenbosch, South Africa
Emmanuel Favaloro
Westmead, Australia
Ronda Greaves
Bundoora, Australia
Juan M. Guerrero
Seville, Spain
João Tiago Guimarães
Porto, Portugal
Markus Herrmann
Bolzano, Italy
Johannes J.M.L. Hoffmann
Nuenen, Netherlands
Kiyoshi Ichihara
Ube, Japan

Berend Isermann
Magdeburg, Germany
Joannes F.M. Jacobs
Nijmegen, Netherlands
Petr Jarolim
Boston, MA, USA
János Kappelmayer
Debrecen, Hungary
Steven Kazmierczak
Portland, OR, USA
Wolfgang Korte
St. Gallen, Switzerland
Christos Kroupis
Athens, Greece
Leslie Charles Lai
Kuala Lumpur, Malaysia
Sylvain Lehmann
Montpellier, France
Janja Marc
Ljubljana, Slovenia
David Meyre
Hamilton, Canada
Tomris Özben
Antalya, Turkey

Vladimir Palicka
Hradec Králové,
Czech Republic
Mauro Panteghini
Milan, Italy
Maria Pasic
Toronto, Canada
Geraldo Picheth
Curitiba, Brazil
Grazyna Sypniewska
Bydgoszcz, Poland
Kannan Vaidynathan
Tiruvalla, India
Oswald Wagner
Vienna, Austria
John B. Whitfield
Brisbane, Australia
Maria Alice V. Willrich
Rochester, MN, USA

MANAGING EDITOR

Heike Jahnke
Berlin, Germany

DE GRUYTER

ABSTRACTED/INDEXED IN Academic Search; Advanced Placement Source; Analytical Abstracts; Baidu Scholar; BIOBASE/CABS (Current Awareness in Biological Sciences); Biological Abstracts; BIOSIS Previews; CAB Abstracts; Celdes; Chemical Abstracts Service (CAS); Chemical Abstracts Service (CAS) - SciFinder; CNKI Scholar (China National Knowledge Infrastructure); CNPIEC; Current Contents/Life Sciences; Deep Indexing; Science Journals; Discovery Service (EBSCO); EMBASE; Gale/Cengage; Global Health; Google Scholar; ICAP Alcohol Information Databases; Illustrata: Natural Sciences; Illustrata: Technology; J-Gate; Journal Citation Reports/Science Edition; JournalTOCs; Materials Research Database; Medline; MegaFILE; Naviga (Softweco); Neurosciences Abstracts; Primo Central (ExLibris); Prous Science Integrity; PubMed; PubsHub; ReadCube; ResearchGate; Science Citation Index; Science Citation Index Expanded; Sciencescape; SCImago (SJR); SCOPUS; Summon (Serials Solutions/ProQuest); TDOne (TDNet); Technology Research Database; TEMA Technik und Management; TOC Premier; Ulrich's Periodicals Directory/ulrichsweb; WorldCat (OCLC).

CCLM is the official journal of the Association of Clinical Biochemists in Ireland (ACBI), the Austrian Society of Laboratory Medicine and Clinical Chemistry (ÖGLMKC), the German United Society for Clinical Chemistry and Laboratory Medicine (DGKL), the Hungarian Society of Laboratory Medicine (MLDT), the Italian Society of Clinical Biochemistry and Clinical Molecular Biology (SIBioC), the Portuguese Society of Clinical Chemistry, Genetics and Laboratory Medicine (SPML) and the Slovenian Association for Clinical Chemistry and Laboratory Medicine (SZKKLM). *CCLM* is affiliated with the Australasian Association of Clinical Biochemists (AACB) and Société Française de Biologie Clinique (SFBC).

The publisher, together with the authors and editors, has taken great pains to ensure that all information presented in this work (programs, applications, amounts, dosages, etc.) reflects the standard of knowledge at the time of publication. Despite careful manuscript preparation and proof correction, errors can nevertheless occur. Authors, editors and publisher disclaim all responsibility for any errors or omissions or liability for the results obtained from use of the information, or parts thereof, contained in this work.

The citation of registered names, trade names, trademarks, etc. in this work does not imply, even in the absence of a specific statement, that such names are exempt from laws and regulations protecting trademarks etc. and therefore free for general use.

ISSN 1434-6621 · e-ISSN1437-4331 · CODEN CCLMFW

All information regarding notes for contributors, subscriptions, Open access, back volumes and orders is available online at www.degruyter.com/cclm.

RESPONSIBLE EDITOR(S) Prof. Dr. Mario Plebani, Università di Padova, Dipartimento di Medicina di Laboratorio, Azienda Ospedaliera di Padova, Via Nicolò Giustiniani 2, 35131 Padova, Italy. Tel.: +390 (0)49 821 2792, Fax: +390 (0)49 663 240, Email: mario.plebani@unipd.it

JOURNAL MANAGER Heike Jahnke, De Gruyter, Genthiner Straße 13, 10785 Berlin, Germany, Tel.: +49 (0)30 260 05 – 220, Fax: +49 (0)30 260 05 – 325, Email: heike.jahnke@degruyter.com

RESPONSIBLE FOR ADVERTISEMENTS top-ad Bernd Beutel, Schlossergäßchen 10, 69469 Weinheim, Germany, Tel.: +49 (0)62 01 290 92-0, Fax: +49 (0)62 01 290 92-20, E-mail: info@top-ad-online.de

© 2017 Walter de Gruyter GmbH, Berlin/Boston

TYPESETTING Compuscript Ltd., Shannon, Ireland

PRINTING Franz X. Stückle Druck und Verlag e.K., Ettenheim

Printed in Germany

COVER ILLUSTRATION Research lab © Eisenhans. Permission to use the image on the cover granted by Fotolia LLC.





EUROMEDLAB

ATHENS 2017

EUROMEDLAB ATHENS 2017

22nd IFCC-EFLM European Congress of Clinical Chemistry and Laboratory Medicine.

25th Meeting of the Balkan Clinical Laboratory Federation

15th National Congress of GSCC-CB

11-15 June 2017, Athens, Greece



Congress President of EuroMedLab Athens 2017

Dr. Alexander Haliassos

Congress Organizing Committee

Dr. Alexander Haliassos Chair
Dr. Efi Mpotoula Treasurer
Prof. Christos Kroupis Scientific Committee Liaison
Dr. Aggeliki Ferderigou Social Events
Dr. Nota Spyropoulou Social Events
Dr. Katerina Psarra Public Relations
Dr. Irene Leimoni Executive Manager
Dr. Bernard Gouget EuroMedLab 2015 Liaison
Dr. Angelos Evangelopoulos Corporate Members Representative
Prof. Tomas Zima IFCC Representative
Prof. Grazyna Sypniewska EFLM Representative

Scientific Program Committee

Prof. Eleni Bairaktari	Prof. Christos Kroupis	Prof. Demetrios Rizos
Prof. Eleftherios Diamandis	Prof. Evi Lianidou	Prof. Andreas Scorilas
Prof. Maurizio Ferrari	Dr. Konstantinos Makris	Prof. Georgia Sotiropoulou
Prof. Damien Gruson	Prof. Paraskevi Moutsatsou	Prof. Christos Tsatsanis
Dr. Alexander Haliassos	Prof. Mauro Panteghini	

International Scientific Advisory Board

ALBANIA Etleva Refatllari	GREECE Ioannis Papassotiriou	POLAND Katarzyna Fischer
AUSTRIA Andrea Griesmacher	HUNGARY Eva Ajzner	PORTUGAL Joao Tiago Guimaraes
BELGIUM Etienne Cavalier	ICELAND Olof Sigurdardottir	ROMANIA Camelia Grigore
BOSNIA HERZEGOVINA Jozo Coric	ISRAEL Marielle Kaplan	SERBIA Nada Majkic-Singh
BULGARIA Kamen Tzatchev	ITALY Ferruccio Ceriotti	SLOVENIA Evgenija Homsak
CROATIA Daria Pasalic	LATVIA Dzintars Ozolins	SPAIN José M. Queraltó
CYPRUS Spyroula A. Christou	LITHUANIA Dalius Vitkus	SWEDEN Soheir Beshara
CZECH REPUBLIC Richard Prusa	MACEDONIA Danica Labudovik	SWITZERLAND Michel F. Rossier
ESTONIA Katrin Reimand	MONTENEGRO Najdana Gligorovic	TURKEY, Dogan Yucel
FINLAND Kari Pulkki	Barhanovic	UK Dimitris Grammatopoulos
FRANCE Michel Vaubourdolle	NETHERLANDS R.H.N. (Ron) van	
GERMANY Michael Neumaier	Schaik	

Organizing Secretariat

MZ Congressi srl

Member of the MZ International Group

Individual company subject to management and coordination by MZ International Group srl

Via Carlo Farini 81 - 20159 Milan - Italy

Telephone: +39 02 66802323

Fax: +39 02 6686699

Email: info@athens2017.org

Biomarkers in cancer

Cod: M277

CORRELATION BETWEEN TUMOUR MARKER CA 125 WITH CEA AND CEA 15-3 FOR OVARIAN CANCER DIAGNOSTIC

J. Tuteska³, M. Arapceska¹, V. Stojkovski², J. Koteska³

¹*Faculty of Biotechnical Sciences, St. Kliment Ohridski University - Bitola*

²*Faculty of Veterinary Medicine, Ss. Cyril and Methodius University - Skopje*

³*Medical Nursing College, St. Kliment Ohridski University - Bitola*

(Former Yugoslavian Republic of Macedonia)

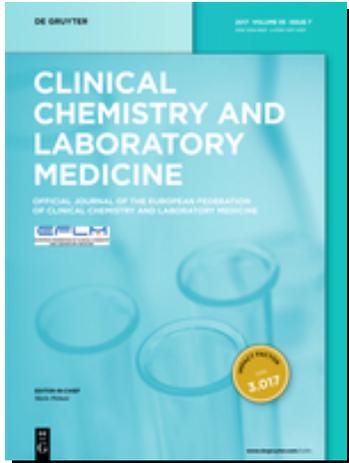
jtuteska@yahoo.com

Background: Tumour marker CEA 125 can be used to detect and monitor ovarian cancer. Also, tumour markers CEA and CEA 15-3 can be used as additional parameters. Very often is a trade-off between sensitivity and specificity. Ovarian cancer has the highest death rate among gynaecological cancers. Most ovarian cancers are not detected until a late stage and survival rates than are desperately low.

Methods: The study included 20 patients with ovarian cancer. The concentration of tumour markers were measured by IMMULITE 2000 Analyzer.

Results: Obtained results have shown significant differences between concentration of tumour markers before and after surgery. The tumour marker CEA 125 is elevated in about 87% of patients with ovarian cancer but only in about 43% of early stage disease. The concentration of CEA 125 before surgery was 125U/ml but after surgery was 110U/ml. The specificity of tumour markers CEA and CEA 15-3 was not significant for diagnostic of ovarian cancer.

Conclusions: Tumour markers are valuable diagnostic parameters to support clinical decision making. Specificity of CEA 125 can be very significant and useful for diagnostic and therapy in patients with ovarian cancer. No significant correlation between CEA 125 with CEA and CEA 15-3 was found in this study.



Clinical Chemistry and Laboratory Medicine (CCLM)

Published in Association with the European Federation of Clinical Chemistry and Laboratory Medicine (EFLM)

Editor-in-Chief: Plebani, Mario

Ed. by Gillery, Philippe / Lackner, Karl J. / Lippi, Giuseppe / Melichar, Bohuslav / Payne, Deborah A. / Schlattmann, Peter / Tate, Jillian R.

12 Issues per year

IMPACT FACTOR increased in 2015: 3.017

Rank 5 out of 30 in category Medical Laboratory Technology in the 2014 Thomson Reuters Journal Citation Report/Science Edition

SCImago Journal Rank (SJR) 2015: 0.873

Source Normalized Impact per Paper (SNIP) 2015: 0.982

Impact per Publication (IPP) 2015: 2.238