CJASN Clinical Journal of the American Society of Nephrology

Hemolytic Uremic Syndrome in Pregnancy and Postpartum

Alexandra Bruel, David Kavanagh, Marina Noris, Yahsou Delmas, Edwin K.S. Wong, Elena Bresin, François Provôt, Vicky Brocklebank, Caterina Mele, Giuseppe Remuzzi, Chantal Loirat, Véronique Frémeaux-Bacchi, Fadi Fakhouri

[+] Author Affiliations

Correspondence:
Dr. Fadi Fakhouri, Department of Nephrology and Immunology, ITUN, Centre Hospitalier Universitaire, Nantes, France. Email: fadi.fakhouri@univ-nantes.fr

V.F.-B. and F.F. contributed equally to this work.

« Previous | Next Article »
Table of Contents

This Article

Published online before print June 2017, doi: 10.2215/CJN.00280117
CJASN **August 07, 2017** vol. 12 no. 8 1237-1247

» Abstract *Free*
Figures Only *Free*
Full Text *Free*
Full Text (PDF) *Free*
Supplemental Data

[-] Article Usage Stats
Article Usage Statistics

[-] Services
Email this article to a colleague
Alert me when this article is cited
Alert me if a correction is posted
Similar articles in this journal
Similar articles in PubMed
Download to citation manager
© Get Permissions

[+] Citing Articles
[+] Google Scholar
[+] PubMed

Abstract

Background Pregnancy is associated with various forms of thrombotic microangiopathy, including hemolytic uremic syndrome. A previous small French study suggested that pregnancy-associated hemolytic uremic syndrome was to be included in the spectrum of atypical hemolytic uremic syndrome linked to complement alternative pathway dysregulation.

Design, setting, participants, & measurements We sought to retrospectively analyze the presentation, outcome, and frequency of complement alternative pathway gene variants in a larger international (France, United Kingdom, Italy) cohort of patients with pregnancy-associated hemolytic uremic syndrome.

Results Eighty-seven patients with pregnancy-associated hemolytic uremic syndrome were included. Hemolytic uremic syndrome occurred mainly during the first pregnancy (58%) and in the postpartum period (76%). At diagnosis, 56 (71%) patients required dialysis. Fifty-six (78%) patients underwent plasma exchanges, 21 (41%) received plasma infusions, and four (5%) received eculizumab. During follow-up (mean duration of 7.2 years), 41 (53%) patients reached ESRD, 15 (19%) had CKD, and 18 (28%) patients experienced hemolytic uremic syndrome relapse. Twenty-four patients (27%) received a kidney transplant and a recurrence of hemolytic uremic syndrome occurred in 13 (54%) patients. Variants in complement genes were detected in 49 (56%) patients, mainly in the *CFH* (30%) and *CFI* genes (9%).

Conclusions Pregnancy-associated hemolytic uremic syndrome and atypical hemolytic uremic syndrome nonrelated to pregnancy have the same severity at onset and during follow-up and the same frequency of complement gene variants.

hemolytic uremic syndrome | complement | pregnancy | thrombotic microangiopathy | Antibodies, Monoclonal, Humanized | Atypical Hemolytic Uremic Syndrome | Complement Pathway, Alternative | Female | Follow-Up Studies | France | Humans | Italy | Kidney Failure, Chronic | kidney transplantation | Plasma Exchange | Postpartum Period | Pregnancy | Recurrence | renal dialysis | Retrospective Studies | Thrombotic Microangiopathies | United Kingdom | chemotactic factor inactivator | eculizumab

Received January 10, 2017.
Accepted May 5, 2017.

We recommend

Current Issue
March 07, 2018, 13 (3)

Alert me to new issues of CJASN

ONLINE SUBMISSION
AUTHOR RESOURCES
ABOUT CJASN
EDITORIAL BOARD
REPRINTS/PERMISSIONS
IMPACT FACTOR
MOST READ
MOST CITED

CJASN ePress
Updated on:
March 9, 2018
By Date / By Subject

RSS

Advertising Disclaimer

Pathogenic Variants in Complement Genes and Risk of Atypical Hemolytic Uremic Syndrome Relapse after Eculizumab Discontinuation
Fadi Fakhouri et al., Clin J Am Soc Nephrol

Kidney Disease Caused by Dysregulation of the Complement Alternative Pathway: An Etiologic Approach.
An S De Vriese et al., J Am Soc Nephrol

Obstetric nephrology: AKI and thrombotic microangiopathies in pregnancy.
Fadi Fakhouri et al., Clin J Am Soc Nephrol

A Patient with Hemolytic Uremic Syndrome and Kidney Failure
Joshua M. Thurman, Clin J Am Soc Nephrol

New approaches to the treatment of dense deposit disease.
Richard J H Smith et al., J Am Soc Nephrol

Southern Regional Meeting, New Orleans, February 18–20, 2016
BMJ Publishing Group Ltd, J Investig Med

Western Medical Research Conference 2017 (Formerly Western Regional Meeting) Camel, California, January 26–28, 2017
BMJ Publishing Group Ltd, J Investig Med

Share your Insights and Learn How Readers Discover Content
TrendMD, Renew Publishing Consultants

Pioglitazone and risk of mortality in patients with type 2 diabetes: results from a European multidatabase cohort study
Solomon Christopher et al., BMJ Open Diab Res Care

Targeted treatment using monoclonal antibodies and tyrosine-kinase inhibitors in pregnancy
Alice A Robinson et al., The Lancet Oncology

Powered by TrendMD

Articles citing this article

Maternal and Fetal Outcomes of Pregnancies in Women with Atypical Hemolytic Uremic Syndrome
J. Am. Soc. Nephrol. March 1, 2018 29): (3) 1020–1029
»Abstract »Full Text »Full Text (PDF)

A Patient with Hemolytic Uremic Syndrome and Kidney Failure
CJASN February 19, 2018 0): (2018) CJN.13191117v1–CJN.13191117

Thrombotic Microangiopathy and the Kidney
CJASN February 7, 2018 13): (2) 300–317
»Abstract »Full Text »Full Text (PDF)

Print ISSN: 1555-9041
Online ISSN: 1555-905X