SSC Subcommittee Project

DIC as an obstetric complication

A joint project from: Women’s Issues in Thrombosis and Hemostasis and Disseminated Intravascular Coagulation

Person responsible (Chair / Principal Investigator):

Offer Erez (PI)

Collaborators (Rezan Kadir, Peter Collins, Jecko Tachil)

Maha Othman (Chair of Women’s Issues)

Toshiaki Iba (Chair of DIC)

Description Abstract

One of the leading causes of maternal morbidity and mortality worldwide is hemorrhage and about 50% of these cases are salvageable\(^1\). Maternal bleeding is either surgical or due to coagulopathy; mostly postpartum hemorrhage (PPH). Disseminated intravascular coagulation (DIC) is a complex disease with thrombosis resulting from systemic activation of the coagulation and bleeding due to consumption of coagulation factors and platelets \(^2\). The definition of DIC in obstetrics is currently based on the clinical impression of the attending physician, and loosely on some laboratory tests. Moreover, considerable controversy exists between obstetric and hematology specialties regarding these definitions and whether a “true” DIC exists in obstetrics \(^3\). The debate -not evident in literature- but rather comes across in oral communications, remains to be resolved.

A guidance document on the management of coagulopathy associated with postpartum hemorrhage was published by the SCC of ISTH in 2016 \(^4\). The current project aims to discuss mainly the clinical condition and pregnancy complications associated with DIC and to address the definitions, underlying mechanisms associated with the development of DIC in these conditions, tools to diagnose DIC in obstetrical complications, and the effect of DIC on the management of pregnancy and finally providing recommendations in this regards.

Design and methodology (Data expected to collect, sample size and statistical analysis):

The project consists of publishing a manuscript as an SSC recommendation on the diagnosis of DIC in obstetrical complications, and the effect on the management of pregnancy. A review of the literature and an extensive discussion of the issue among several experts in both fields; hematology and obstetrics will be completed prior to proceeding with the manuscript and recommendations.

The following points are to be covered:

- What is the prevalence of DIC in pregnancy?
- What are the mechanisms leading to this complication?
- How can we diagnose DIC during pregnancy?
- What is the effect of DIC on pregnancy outcomes?
- Current controversies in the definition of DIC during pregnancy
- DIC scoring
- SSC recommendations for diagnosis and management
SSC Subcommittee Project

An open discussion about the topic is planned to be part of the ISTH SSC 2018 agenda

Study population (Inclusion, exclusion, eligibility) (patient population; recruitment of participating institutions/physicians and subjects; minimum number needed; expected number):

Not applicable for this project.

Expected timeline:

- Literature review- ongoing
- Oral discussion among experts- ongoing
- Open discussion at SSC 2018
- Manuscript is expected by July 2018

Expected outcomes (ie. publications):

- Provide new insights to the reader, which can lead to better understanding of the definition of DIC in Obstetrics, the mechanism leading to DIC in pregnancy, which are different than those of the non-pregnant state.
- Highlight to the clinician the need for a different approach and interpretation of the results of coagulation studies in pregnant women, especially among those with acute bleeding.
- Highlight some considerations during the management of pregnant women with DIC.

Publication type (SSC Communication, Guidance document or original article):

SSC Communication/ recommendation
Proposed Authors: Anat Rabinovich, Rezan Abdul-Kadir, Jecko Thachil, Maha Othman, Peter Collins, Offer Erez

Timeline: Completion of Manuscript:

August 2018

Description of project set/up and management, needed infrastructure and resources (summary):

None needed

Possible references:

