

EDITORIAL

Anticoagulant therapy and psychological problem: Preparing for emerging problems associated with pregnancy and delivery

Shunji Suzuki

Department of Obstetrics & Gynecology, Nippon Medical School, Tokyo 113-8603, Japan

To provide comprehensive support for women, we believe that the recognition of pregnancy as a positive opportunity to re-examine women's health will be important. In our department, we will be continuous concerning phenomena and diseases that may occur in their life, so that women can lead the best life for each individual.^[1,2] In addition to research to prepare for a safe and comfortable pregnancy and delivery, we aim to snuggle up to the whole life of women by examining not only the physical health care but also the mental health care.

In order to improve the pregnancy rate, we are mainly conducting basic and clinical research on assisted reproductive technology and clinical research on preimplantation genetic diagnosis.^[3,4] In our department, we are also performing research concerning recurrent pregnancy loss as pre-conception care which improves the health condition of children who will be born someday. Recurrent pregnancy loss is a disease in which pregnancy will be gotten but stillbirth and/or early neonatal mortality will be repeated.^[5] In most cases, the pregnancy of women with a history of recurrent miscarriage has not been associated with adverse outcomes.^[3] However, there has been presumed that there is a special cause in some recurrent pregnancy loss, unlike common miscarriage.^[6] We are exploring the cause and examining the preventive effects of stillbirth such as anticoagulant therapy.^[6-8]

In addition, in collaboration with the Department of Microbiology and Immunology at Nippon Medical School, we are also conducting the elucidation of the

immunological mechanism of preterm birth caused by aseptic inflammation,^[9,10] the examination of perinatal prognosis of pregnancy with endometriosis, and the clinical usefulness of hormone replacement therapy to prevent premature delivery.^[11] Our studies have also indicated the elucidating of the role of inflammation in complications during pregnancy may be new perspectives of the progress of normal pregnancy as well as treatments during pregnancy complications.^[12]

Recently, in addition, perinatal mental disorders became recognized as significant complications of pregnancy and the postpartum period.^[13,14] Untreated maternal mental disorders may lead to some serious social and physical problems such as suicide by pregnant and postpartum women including murder-suicide, and child abuse/neglect by mothers.^[15] Perinatal mental disorders have impaired a woman's function and been associated with the suboptimal development of her children in Japan as well as in other Western countries.^[16-18] Therefore, we understand that perinatal mental health care is required for the emotional well-being of pregnant women and their children, partners and families.^[14,19,20] We will conduct studies to perform mental health care related to various perinatal complications in the future.

Conflict of Interest

Shunji Suzuki is an Editorial Board Member of the journal. The article is subject to the journal's standard procedures, with peer review handled independently of this member

Corresponding Author:

Prof. Shunji Suzuki


E-mail: czg83542@mopera.ne.jp

Peer review under responsibility of Scholar Media Publishing.

Citation:

Suzuki S. Anticoagulant therapy and psychological problem: Preparing for emerging problems associated with pregnancy and delivery. *Placenta Reprod Med* 2022;1:4.

DOI: 10.54844/prm.2022.0083**Received:** 30 March 2022**Accepted:** 25 April 2022**Published:** 29 August 2022

 This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs 4.0 International License (<https://creativecommons.org/licenses/by-nc-nd/4.0/>), which allows others to copy and redistribute the material in any medium or format non-commercially.

and his research group.

REFERENCES

1. Nippon Medical School. Hippocrates (in Japanese). Available at: <https://hippocrates.nms.ac.jp/>. Accessed March 30, 2022.
2. Suzuki S. Preconception care (in Japanese). *Act Obstet Gynecology Jap* 2022;74:461–469.
3. Terada K, Nakanishi K, Suzuki S. Clinical characteristics of pregnancies with a history of recurrent miscarriage at a Japanese perinatal center. *J Nippon Med Sch* 2015;82:36–38.
4. Ouchi N, Takeshita T, Kasano S, Yokote R, Yonezawa M, Kurashina R, *et al*. Effects of thrombophilia and antithrombotic therapy on embryonic chromosomal aberration rates in patients with recurrent pregnancy loss. *J Nippon Med Sch* 2022;89:40–46.
5. Baek KH, Lee EJ, Kim YS. Recurrent pregnancy loss: the key potential mechanisms. *Trends Mol Med* 2007;13:310–317.
6. Morita K, Ono Y, Takeshita T, Sugi T, Fujii T, Yamada H, *et al*. Risk Factors and Outcomes of Recurrent Pregnancy Loss in Japan. *J Obstet Gynaecol Res* 2019;45:1997–2006.
7. Yonezawa M, Kuwabara Y, Ono S, Ouchi N, Ichikawa T, Takeshita T. Significance of anti-phosphatidylethanolamine antibodies in the pathogenesis of recurrent pregnancy loss. *Reprod Sci* 2020;27:1888–1893.
8. Miyazaki M, Kuwabara Y, Takeshita T. Influence of perinatal low-dose acetylsalicylic acid therapy on fetal hemodynamics evaluated by determining the acceleration-time/ejection-time ratio in the ductus arteriosus. *J Obstet Gynaecol Res* 2018;44:87–92.
9. Negishi Y, Takahashi H, Kuwabara Y, Takeshita T. Innate immune cells in reproduction. *J Obstet Gynaecol Res* 2018;44:2025–2036.
10. Kato M, Negishi Y, Shima Y, Kuwabara Y, Morita R, Takeshita T. Inappropriate activation of invariant natural killer T cells and antigen-presenting cells with the elevation of HMGB1 in preterm births without acute chorioamnionitis. *Am J Reprod Immunol* 2021;85:e13330.
11. Kuwabara Y, Katayama A, Kurihara S, Ito M, Yonezawa M, Ouchi N, *et al*. Diversity of progesterone action on lipopolysaccharide-induced expression changes in cultured human cervical fibroblasts according to inflammation and treatment timing. *Am J Reprod Immunol* 2017;78.
12. Negishi Y, Shima Y, Takeshita T, Morita R. Harmful and beneficial effects of inflammatory response on reproduction: sterile and pathogen-associated inflammation. *Immunol Med* 2021;44:98–115.
13. Japan Association of Obstetricians and Gynecologists. MCMC (Mental-health Care for Mother and Child) (in Japanese). Available at: <https://mcmc.jaog.or.jp/>. Accessed March 30, 2022.
14. Suzuki S, Takeda S, Okano T, Kinoshita K. Recent strategies in perinatal mental health care in Japan. *Hypertens Res Pregnancy* 2018;6:11–14.
15. Suzuki S, Sekizawa A, Tanaka M, Okai T, Kinoshita K. Current status of women requiring perinatal mental health care for protecting their children in Japan. *Asian J Psychiatr* 2016;22:93.
16. Japan Association of Obstetricians and Gynecologists. Perinatal Mental Health Care Manual (in Japanese). Available at: http://www.jaog.or.jp/wp/wp-content/uploads/2017/06/jaogmental_L_0001.pdf. Accessed March 30, 2022.
17. Suzuki S, Eto M. Current status of social problems during pregnancy at a Perinatal Center in Japan. *JMA J* 2020;3:307–312.
18. Royal Collage of psychiatry. Perinatal mental health services: what are they? Available at: <https://www.rcpsych.ac.uk/mental-health/treatments-and-wellbeing/what-are-perinatal-mental-health-services>. Accessed March 30, 2022.
19. Suzuki S. Recent status of pregnant women with mental disorders at a Japanese perinatal center. *J Matern Fetal Neonatal Med* 2018;31:2131–2135.
20. Suzuki S, Eto M. Screening for depressive and anxiety symptoms during pregnancy and postpartum at a Japanese perinatal center. *J Clin Med Res* 2017;9:512–515.