



ALEXANDRA MIDDLETON

NATUROPATHIC NUTRITIONIST

19th Jan 2022

Dear Dr Prarnatha Packiam,,

Re: ELENA DOMENICI D.O.B. 10 APRIL 1981

Thank you for seeing Elena who I met with this week for general pregnancy support, morning sickness and fatigue.

Family history

- Factor V Leiden

In light of Elena's pregnancy,, it would be beneficial for us to do a comprehensive review of her general health. As we would like to eliminate any aggravating factors, pending your review and approval I would appreciate it if you would please consider organising the following assessments:

- Progesterone
- hCG
- FBC, UEC, LFT
- FBG, fasting insulin
- Coeliac screen and gene profile
- Iron studies
- B12 + folate
- Miscarriage risk profile: thyroid antibodies, caeruloplasmin, ANA/ENA, Immunoglobulins, IgG/ IgM, Lupus inhibitor/anticoagulant, thrombophilia inhibitor

If there are any assessments you aren't comfortable ordering above please let me know and I can refer Elena for private testing instead. Also, I would appreciate being copied in on the results as I have direct access to most of the major labs.

Thanks again and I look forward to working together with you for Elena's health. Please do not hesitate to contact me.

Yours sincerely,

Alexandra Middleton



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Miscarriage Panel

Thyroid antibodies

The presence of maternal thyroid autoantibodies is strongly associated with miscarriage and preterm delivery.

2011 "Association between thyroid autoantibodies and miscarriage and preterm birth: meta-analysis of evidence"; BMJ 2011; 342 doiCite this as: BMJ 2011;342:d2616

ANA/ ENA

Populations of patients experiencing recurrent pregnancy loss have a significantly higher rate of positive ANA than the general population.

Carp, H. Selmi, C. & Shoenfeld, Y. 2012. The autoimmune bases of infertility and pregnancy loss. Journal of Autoimmunity (38)J266 – J274

Molazadeh M., Karimzadeh, H. & Azizi M. 2014. Prevalence and clinical significance of antinuclear antibodies in Iranian women with unexplained recurrent miscarriage. Iranian Journal of Reproductive Medicine 12(3): 221 – 226.

Cline, A. & Kutteh, W. 2009. Is there a role of autoimmunity in implantation failure after in-vitro fertilization? Current Opinion Obstetrics and Gynaecology. 21(3):291-5

Immunoglobins

Recurrent spontaneous abortion (RSA) may have immunological aetiology.

Hideto Yamada, Masamitsu Takeda, Yoko Maezawa, Yasuhiko Ebina, Ryoichi Hazama, Kenji Tanimura, Yukio Wakui, and Shigeki Shimada: A High Dose Intravenous Immunoglobulin Therapy for Women with Four or More Recurrent Spontaneous Abortions; ISRN Obstetrics and Gynaecology, Volume 2012, Article ID 512732, 5 pages

Anticardiolipin antibody (IgM, IgG)

The persistent presence in plasma of medium to high levels of IgG and/or IgM class anticardiolipin antibodies (aCL) and/or the lupus anticoagulant (LAC) is associated with recurrent pregnancy loss.

DERKSEN RHWM, DE GROOT PG, NIEUWENHUIS HK, et al; How to treat women with antiphospholipid antibodies in pregnancy?; Annals of the Rheumatic Diseases 2001;60:1-3.

Lupus inhibitor/anticoagulant

Lupus anticoagulant and other antiphospholipid antibodies can cause tiny blood clots



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that can lead to pregnancy complications, including miscarriage. A person will usually have no symptoms of having lupus anticoagulant antibodies but might have a recurrent miscarriage or blood clots.

Cowchock FS, Reece EA, Balaban D, et al. "Repeated fetal losses associated with antiphospholipid antibodies: A collaborative randomized trial comparing prednisone with low dose heparin treatment". Am J Obstet Gynecol 166:1318-23, 1992.

Thrombophilia inhibitor/ anticoagulant

Recurrent miscarriage has been associated with thrombophilia in studies.

Adel Abu-Heija 2014 Feb "Thrombophilia and Recurrent Pregnancy Loss - Is heparin still the drug of choice?" Sultan Qaboos Univ Med J.; 14(1): e26–e36.; Published online 2014 Jan 27.

CA125

CA-125 may serve as an accurate predictor of the outcome in early pregnancies with demonstrable foetal heartbeat, which are complicated by bleeding.

Gad Azogui, M.D. Alexander Yaronovski, M.D. Shifra Zohar, M.D. Izhar Ben-Shlomo, M.D. 1996 : "CA-125 is elevated in viable pregnancies destined to be miscarried: a prospective longitudinal study"; Department of Obstetrics and Gynecology, "Rebecca Sieff" Government Hospital, Safed, Israel

Maged Al Mohamady, M.D, Ghada Abdel Fattah, M.D, Eman Elkattan, M.D, Rasha Bayoumy, M.Sc, and Dalia Ahmed Hamed, M.D "Correlation of Serum CA-125 and Progesterone Levels with Ultrasound Markers in The Prediction of Pregnancy Outcome in Threatened Miscarriage"; Int J Fertil Steril. 2016 Jan-Mar; 9(4): 506–511. Published online 2015 Dec 23.

CA-125 is also the serum biomarker that has been more extensively studied in the diagnosis of endometriosis.

Marco Aurelio Pinho Oliveira, Thiers Soares Raymundo, Leila Cristina Soares, Thiago Rodrigues Dantas Pereira, and Alessandra Viviane Evangelista Demôro, Marco Aurelio Pinho Oliveira, Thiers Soares Raymundo, Leila Cristina Soares, Thiago Rodrigues Dantas Pereira, and Alessandra Viviane Evangelista Demôro; "How to Use CA-125 More Effectively in the Diagnosis of Deep Endometriosis"; Department of Gynecology, State University of Rio de Janeiro, Rio de Janeiro, RJ, Brazil; BioMed Research International Volume 2017, Article ID 9857196, 6 pages