



Get amazing images on your most challenging patients. innovation + you
Philips PureWave technology helps you image all your patients. Easily. Confidently.

Discover the difference for you – [click here](#) to learn more >

PHILIPS



[f](#)
[t](#)
[RSS Feeds](#)
[Mobile](#)

[Login](#) | [Register](#) | [Subscribe](#)

[Articles & Issues](#)
[Collections](#)
[For Authors](#)
[Journal Info](#)
[Subscribe](#)
[CME](#)
[SMFM Clinical Guidelines](#)
[Society Info](#)
[More Periodicals](#)

All Content

[Advanced Search](#)

[< Previous Article](#)

American Journal of Obstetrics & Gynecology
[Articles in Press](#)

[Next Article >](#)

Article in Press

Effects of exogenous progesterone on fetal nuchal translucency: an observational prospective study

C. Giorlandino, P. Cignini, F. Padula, D. Giannarelli, L. D'Emidio, A. Aloisi , F. Plotti, R. Angioli

Received: July 6, 2014; Received in revised form: September 21, 2014; Accepted: October 6, 2014; Published Online: October 08, 2014

DOI: <http://dx.doi.org/10.1016/j.ajog.2014.10.003>

Publication stage: In Press Accepted Manuscript

Abstract

Access this article on
[ScienceDirect](#)

Article Tools

[PDF \(1.6 MB\)](#)

[Email Article](#)

[Add to My Reading List](#)

[Export Citation](#)

[Create Citation Alert](#)

[Cited by in Scopus \(0\)](#)

ADVERTISEMENT

THIS JOURNAL
SUPPORTS
MANUSCRIPT
TRANSFERS.

FAST AND
SIMPLE.



FIND OUT
MORE >>>



Abstract

Objective

Nuchal Translucency (NT) seen ultrasonographically at 11-14 weeks' gestation is a sensitive marker for Down Syndrome. Despite its important role for the Down Syndrome screening, its use is still considered controversial due to high false-positive rates. We speculated that progesterone could lead to abnormal blood flow patterns and, subsequently, to an increased NT. Primary endpoint was to evaluate the effects of exogenous progesterone on NT thickness compared to controls. Secondary endpoints was to evaluate these effects in a subgroup at low risk for fetal aneuploidies, identifying the strongest factors influencing NT variation. Tertiary endpoint was to evaluate, within the treatment group, if there is any difference in NT according to the type of progesterone administered, route of administration and dose regimen.

Study design

All women who came to measure NT at 11-14 weeks' gestation (CRL between 45-84 mm) were considered eligible. We divided patients into two groups, women receiving exogenous progesterone and controls. Afterwards, 3 NT scans were performed for each case, and the largest value, accurate to two decimal points, was recorded.

Results

3716 women were enrolled and analysed. In a crude-analysis, NT resulted statistically ($P < 0.05$) increased in the exogenous progesterone group. The same results was obtained in the low-risk group ($p < 0.05$). The factorial ANOVA model confirmed a correlation between altered NT and gestational age ($P < 0.0001$) and progesterone exposure ($P < 0.05$).

The characteristics of treatment (route, formulation, dose) were examined separately and no statistically significant differences among the subgroups were observed.

Conclusion

Exogenous progesterone increases NT.

Keywords:

[progesterone](#), [embryo development](#), [aneuploidy](#), [ultrasound](#), [nuchal translucency](#)

To access this article, please choose from the options below

Log In

Email/Username:

Password:

Remember me

Log In

[Forgot password?](#)

Register

[Create a new account](#)

Purchase access to this article

You must be logged in to purchase this article.

Claim Access

If you are a current subscriber with Society Membership or an Account Number, [claim your access now](#).

Subscribe to this title

[Purchase a subscription](#) to gain access to this and all other articles in this journal.

Institutional Access

[Visit ScienceDirect](#) to see if you have access via your institution.

Conflicts of Interest and Source of Funding: The authors report no conflict of interest.

© 2014 Elsevier Inc. Published by Elsevier Inc. All rights reserved.

[< Previous Article](#)

American Journal of Obstetrics & Gynecology
[Articles in Press](#)

[Next Article >](#)

Copyright © 2014 Elsevier Inc. All rights reserved. | [Privacy Policy](#) | [Terms & Conditions](#) | [About Us](#) | [Help & Contact](#)
The content on this site is intended for health professionals.

Advertisements on this site do not constitute a guarantee or endorsement by the journal, Association, or publisher of the quality or value of such product or of the claims made for it by its manufacturer.