

# Composite Morphometric/Morphographic Ultrasound Parameters of the Second Trimester Cervix for the Prediction of Spontaneous Preterm Labor

**Type of article: Conference abstract**

Ahmed TageldinAbdelhafiz\*, JihanAbdelmoneim Mohamed\*

\*Asiut Clinic for Gynecology and Obstetrics

Asiut, Egypt

## BACKGROUND

There is need for simple, cheap and highly predictive test for spontaneous preterm labor (SPL). The "zone of endocervical crypts (*ZEC*)" is a well-defined sonographic landmark corresponding to *enfolding of the endocervical mucosa*. Early loss of *ZEC* might be considered as indicative of "premature effacement". We tested the efficacy of a "composite" parameter of cervical length plus *ZEC* loss for the prediction SPL.

## MATERIAL/METHODS

The study included singleton pregnant women attending Asyout Clinic for Gynecology and Obstetrics between 20 and <24 weeks' gestation.

Transvaginal ultrasonography was used for:

a) measuring the cervical length, and, b) detecting the existence/non-existence of *ZEC*.

\* *Cervical length* was measured as the distance between the internal os of the cervix and the external os.

\* *The Zone of Endocervical Crypts (ZEC)* was defined as the *heteroechoic area* around the cervical canal (CC). *Monoechoic appearance* of the cervix was described as *loss of the ZEC*.

The sensitivity, specificity, positive and negative predictive values (PPV, NPV) were calculated for: 1) cervical shortening 2) *ZEC* loss, 3) combined 1 & 2, and, 4) funneling

## RESULTS

Two thousand and one pregnancies were evaluated for the incidence and sonographic prediction of SPL (24 - <32 weeks, and 32-36 weeks).

The overall SPL rate was 9%.

Loss of *ZEC*, and, the combined *ZEC* loss with *shortened cervix* were found to have better specificity and better PPV than the cervical shortening alone.

*ZEC* loss had better PPV for early rather than late PL.

"Funneling" had poor PPV, but, is still a good "negative"

## CONCLUSION

The composite parameter of the "lost *ZEC*" and short cervix is superior to the cervical length alone for the early prediction of SPL. Wider scale study is now being run for: a) ensuring the reproducibility of the parameter testing values, and b) to find any correlation between the *ZEC* loss and other clinical criteria as subtle infection.

**Key Words:** ultrasound, Preterm Labor, Cervix

## 1. Declaration of conflicts

This article was selected from ICHSMT'17 abstracts book.

## 2. Authors' biography

No Biography

## 3. REFERENCES

No references