

ABSTRACT SUBMISSION FORM

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SEX + GENDER

Exploring the role of sex and gender on health research



CHR D 2020: Abstract Submission Form

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Title

The relationship between amniotic fluid sludge and proteomic profile in a cohort of pregnant women with acute cervical insufficiency.

Background

Emergency cervical cerclage is contraindicated in the presence of intra-amniotic infection, and traditional methods (amniocentesis with Gram stain and culture) to rule out infection prior to cerclage have low sensitivity. Visualization of intra-amniotic sludge (IAS) may be a non-invasive marker of inflammation/infection in women with cervical insufficiency.

Objective

To determine the relationship between IAS and the amniotic fluid proteome amongst women with acute cervical insufficiency.

Methods

This was a secondary analysis of data collected from a small cohort of women presenting with acute cervical insufficiency. Amniotic fluid was prospectively analyzed by Gram stain, culture and proteomics. Post-processing review of stored, perioperative ultrasound images was performed by two blinded observers to evaluate for presence or absence of IAS. Proteomic profiles, Gram stains and cultures were compared to ultrasound findings to determine the difference between groups.

Results

10 participants were included for analysis (4 in the 'IAS Group' and 6 in the 'Non-IAS Group'). 75% of participants with IAS had negative Gram stain and culture by amniocentesis compared to 34% in those without. The IAS group had higher amounts of keratinizing proteins while higher amounts of inflammatory proteins were seen in the non-IAS group.

Conclusion

These preliminary findings suggest that proteomic profiles of amniotic fluid with and without IAS tend to

differ. IAS tends to be associated with an abundance of keratinizing proteins as opposed to the inflammatory proteins seen without IAS. Given the small sample size, these results must be interpreted with caution and large prospective studies are still needed to determine the utility of IAS and proteomics in diagnosing intrauterine infection.

Theme:

Clinical

Do you have a table/figure to upload?

No

Are you willing to participate in Goodbear's Den?

Yes

Presenter Status:

Residents

What was your role in the project?

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