P1-51: Investigating the Relationship Between Acculturation, Preterm Birth, and Local Inflammatory Responsiveness

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Abstract:
Introduction: The goal of this study was to investigate the relationship between acculturation, preterm births and local immune responsiveness in Hispanic women.
Method(s): The sample consisted of pregnant Hispanic women. Acculturation was defined as the acquisition of traits and behaviors resulting from interactions between culturally distinct groups. This variable was assessed by years in the U.S. (less than or greater than 11 years), country of birth (U.S. or foreign born), and English Proficiency. English proficiency was assessed using the Bi-dimensional Acculturation Scale for Hispanics; with a cutoff score of 2.5 indicating high or low levels. At 22-24 weeks gestational age, vaginal speculum examinations were performed to obtain tissue samples. Tumor necrosis factor-alpha (TNF-α) and interleukin-1β (IL-1β) were then assayed by ELISA. Statistical analysis was performed using a One-Way Analysis of Variance.

Results: We observed significant increases in TNF-α and IL-1β with women who had preterm births (p<0.001 and p<0.05, respectively). Additionally, higher degrees of acculturation corresponded to elevated levels of inflammatory responsiveness. TNF- α levels were higher in participants that were U.S. born (p<0.05), had been in the U.S. for more than 11 years (p<0.05), and that had high English proficiency levels (p<0.01). Similarly, IL-1β levels were higher in patients that had been in the U.S. for more than 11 years (p<0.05) and had high levels of English proficiency (p<0.01). IL-1β levels were also higher in U.S. born individuals, but this difference was not statistically significant (p=0.07).

Discussion & Conclusions: The findings of this study show that vaginal cytokine levels are predictive of preterm birth in acculturated Hispanic women. Studying this phenomenon in the Hispanic population can further our understanding of the biological pathways linking acculturation and preterm birth. Furthermore, these findings contribute to the development of a risk profile for preterm birth in the growing Hispanic population.

Abstract History:
This abstract has not been presented or accepted for presentation in whole or in part at the SNRS or other scientific meeting.

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No, I (or a member of my immediate family) have not received something of value* from or own stock (or stock options) in a commercial company or institution related directly or indirectly to the subject of my presentation.

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