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## EP07.69: Association between pregnancy associated plasma protein-A (PAPP-A) and crown-rump length (CRL) in twin pregnancies during first trimester scan

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### Objectives

- We aimed to investigate the association between pregnancy associated plasma protein-A (PAPP-A) and crown-rump length (CRL) in twin pregnancies during first trimester scan

### Methods

- The present cohort study included twin pregnancies that consecutively underwent a first trimester scan in the two different fetomaternal centres in Central Greece during a 5-year period.
- A prospective database was created included basic demographics, medical history, CRL values and PAPP-A levels.
- Statistical analysis was carried out using R statistical software.

### Results

- In total 510 twin pregnancies were included in our cohort.
- A statistically significant positive correlation was found between CRL of the larger embryo measured in the first trimester scan and PAPP-A values ( $r=0.2$ ,  $p< 0.001$ ), reporting that increasing PAPP-A was associated with increasing CRL values.
- However, CRL discrepancy greater than 10% was not statistically significant ( $p= 0.9$ ).
- In multivariate analysis, increased PAPP A values were identified as independent factors associated with increased CRL in first trimester.

### Conclusions

- Biomarkers associating with CRL in first trimester scan can help obstetricians understand early growth patterns in twin pregnancy.
- Further larger scale prospective cohort studies investigating early growth patterns in twins are needed.

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