GESTATIONAL AGE-SPECIFIC AMNIOTIC FLUID INDICES IN NORMAL FILIPINO PREGNANCIES
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INTRODUCTION
A correlation between amniotic fluid volume and gestational age has been established but differences in environment and race are factors that may influence this correlation.

The objectives of this retrospective study are (1) to obtain gestational age-specific amniotic fluid indices (AFI) in a Filipino population and compare with Taiwanese, Chinese, Vietnamese, and North American subjects to determine if there are significant differences; (2) construct a table of values and plot predicted percentiles of AFI per gestational age.

METHODS
Data were gathered from 3,500 Filipinos with singleton uncomplicated pregnancies from 24 to 41 weeks who underwent sonography at the OB-GYN Ultrasound Section of a tertiary institution from January 2001 to December 2005. Examinations were performed using a linear array transducer on B-mode. The AFIs were measured using the four-quadrant technique.

The AFIs were stratified by gestational age. The mean and median for each completed week were calculated, then compared with other populations.

SAS software was used for statistical analyses.

Quadratic regression of mean AFIs was used to predict the 3rd, 5th, 10th, 50th, 90th, 95th, and 97th percentiles of AFI per gestational age.

RESULTS
The mean AFI of our subjects peaked at 14.86 cm at 28 weeks then gradually declined until 41 weeks.

Comparing the Filipino with Taiwanese and Vietnamese populations, majority of the mean AFIs per gestational age have significant differences. Thirty of the eighteen weekly mean AFIs in the Filipino-Taiwanese comparison, and eleven of fourteen in the Filipino-Vietnamese comparison were statistically different.

The North Americans had a slightly higher AFI than Filipinos, with an average difference of 0.64 cm. The Chinese had a markedly lower AFI, with an average difference of 3.59 cm.

Quadratic regression of the mean gestational-age specific AFIs was used to obtain a best-fit line to plot predicted values for the 3rd, 5th, 50th, 95th and 97th percentiles. These lines provide a better estimation of the periodic changes in AFI.

CONCLUSION
The authors recommend usage of the predicted values obtained in this study as reference AFI for Filipino patients. There are significant differences in values across populations, increasing the value of a race- and gestational age-specific reference.


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