Reference range of fetal NT thickness in Iran
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Objective
Considering that the establishment of a reference value of NT related to the CRL during the first trimester will be helpful in determining an appropriate cutoff level for screening of increased NT related abnormalities, we aimed to establish the reference values for the NT thickness and investigate its relation with different chromosomal and non chromosomal abnormality among a large sample size of Iranian pregnant women.

Methods
In this analytic cross-sectional study, pregnant women during antenatal visit in their first trimester were enrolled. Using an abdominal ultrasonography, the fetal NT thickness of studied population was measured. Those with increased NT thickness were determined. The reference value of NT thickness (5th, 25th, 50th, 75th and 95th percentiles) within each 5-mm range of CRL and during 11th, 12th and 13th gestational weeks were determined. The presence of different chromosomal and non chromosomal abnormalities were compared in women with different percentiles of NT thickness who underwent amniocentesis or not.

Results
1614 pregnant women were evaluated. The mean of NT thickness was 1.30 ± 0.54 mm. Increased NT thickness >2mm and > 95th percentile according to their gestational age was detected in 89 (5.5%) and 58 (3.6%) of pregnant women. The reference 95th percentile value range for NT was 1.8-2.35 and increased NT according to our obtained values is associated significantly with chromosomal abnormalities.

Conclusion
The obtained reference range in our studied population was different from that reported for other ethnic groups and it is suggested that using this values are more favorable for screening of chromosomal abnormalities during first trimester of pregnancy than the recommended single cut-off value.