

## Maternal abdominal subcutaneous fat thickness as a simple predictor for gestational diabetes mellitus.

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### ABSTRACT

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**Background** To date, only a limited number of studies have evaluated the importance of abdominal subcutaneous fat thickness (ASFT) on gestational diabetes mellitus (GDM) screening. The aim of this study was to investigate the effectiveness of ASFT measurement during routine obstetric ultrasound performed between 24 and 28 weeks of gestation in predicting cases with GDM. **Methods** This prospective comparative study was conducted on 50 cases with GDM and 50 cases without GDM in the GDM screening program at 24-28 gestational weeks between January 2018 and May 2018. The most accurate ASFT cut-off point values were determined for the prediction of cases with GDM by performing receiver operator characteristic (ROC) curve analysis. **Results** The ASFT was higher in those with GDM compared to those without GDM ( $P < 0.05$ ). For an ASFT cut-off point value of 18.1 mm for the prediction of cases with GDM, the sensitivity, specificity, negative and positive predictive values were 72.0%, 60.0%, 64.2% and 68.1%, respectively. The risk of GDM increased 3.86-fold in those with ASFT level  $>18.1$  mm ( $P = 0.001$ ). **Conclusion** The ASFT value measured by routine obstetric ultrasound performed at 24-28 weeks of gestation was found to be significantly higher in patients with GDM in comparison to those without GDM. However, further multi-centered and comprehensive prospective studies are required to better demonstrate this relationship.