Objective: To study the function of advanced glycation end products (AGEs) in maternal serum, umbilical cord blood and placenta in the patients with preeclampsia (PE).

Methods: A total of 60 women with PE and 60 normal pregnant women as control participated in this study. All were admitted to Fujian Maternity and Child Health Hospital for delivery from October 2011 to September 2010. Patients with PE were divided into early-onset group and late-onset group, with 30 normal pregnant women as early control group and 30 as late control group. AGEs in maternal serum, umbilical cord blood and placenta was detected. Improved copper agent colorimetry was used to detect FFA in maternal serum.

Results:
(1) Compared to the control group the maternal serum AGEs was increased in early-onset PE group and late-onset PE group.
(2) Compared to the control group the mean umbilical cord blood AGEs concentration was increased in early-onset PE group and late-onset PE group.
(3) Compared to the late control group the mean placental AGEs was increased in early-onset PE group and late-onset PE group.
(4) Compared to the control group, the maternal serum FFA was increased in early-onset PE group and late-onset PE group.
(5) Maternal serum FFA in early-onset PE group and late-onset PE group correlated positively with maternal serum AGEs ($r=0.764$, $r=0.774$, $P<0.05$).

Conclusions: Increased AGEs in maternal serum, umbilical cord blood and placenta and increased FFA in maternal serum may be involved in the pathogenesis of PE.