



# The Establishment of a Score System for Vaginal Delivery of Twin Pregnancy

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## 1、 Objective

To establish a score system for vaginal delivery of twin pregnancy

## 2、 Methods

### study subjects:

the twin pregnant women (uncomplicated twin pregnancy with head downward position of the first fetus, not MCMA twins) who were under systematic antenatal care and delivered at the Beijing Obstetrics and Gynecology Hospital from January 2017 to March 2019.

### The study targets:

**Fetus:** the chorionicity, position of the second fetus, weights and the difference of the two fetuses;

**Mother:** the maternal age, delivery pregnancy weeks, parity, BMI, reasonability of weight gain during pregnancy, IVF-ET, complications during pregnancy (including GDM, PIH, etc.);

**Others:** the technical title of the doctor, modes of labour (spontaneous labor or induced labour and its mode), the application of labor analgesia, etc.

## 3、 Results

There were 114 women of twin pregnancy meeting the study requirements with 96 in the study group and 18 in the comparison group.

There are five variables, including the age of the mother, complicated GDM, reasonability of weight gain during pregnancy, parity, and the weight of the second fetus is less than the first, were included in the model

## 4、 Conclusion

The age of the mother, reasonability of weight gain during pregnancy, the complication of GDM, parity, and the weight difference of the twins are the influential factors for vaginal delivery of twin pregnancy and should be included in the success rate forecast model of vaginal delivery. The total score of the model is 361 and when the score is larger than 168, the success rate of the vaginal delivery increases significantly.

	$\beta$	OR	95%CI	P
age<35	1.952	7.04	1.602 30.94	0.009
reasonability of weight gain	2.498	12.16	1.869 79.16	0.008
not GDM	3.044	20.99	1.987 221.8	0.011
parity ( $\geq 2$ )	1.773	5.893	1.002 36.73	0.050
the weight of the second fetus is less than the first	1.729	5.63	1.029 30.84	0.046

Table 1 Related factors to vaginal delivery of twins

factors	scores	
GDM and insulin	Not GDM	100
	GDM not used insulin	47
	GDM used insulin	0
Weight gain	Reasonability	82
	Not reasonability	0
Age	<35	64
	$\geq 35$	0
Parity	$\geq 2$	58
	1	0
Weight of baby	The second less	57
	The second more	0

Table 2 The scores of related factors

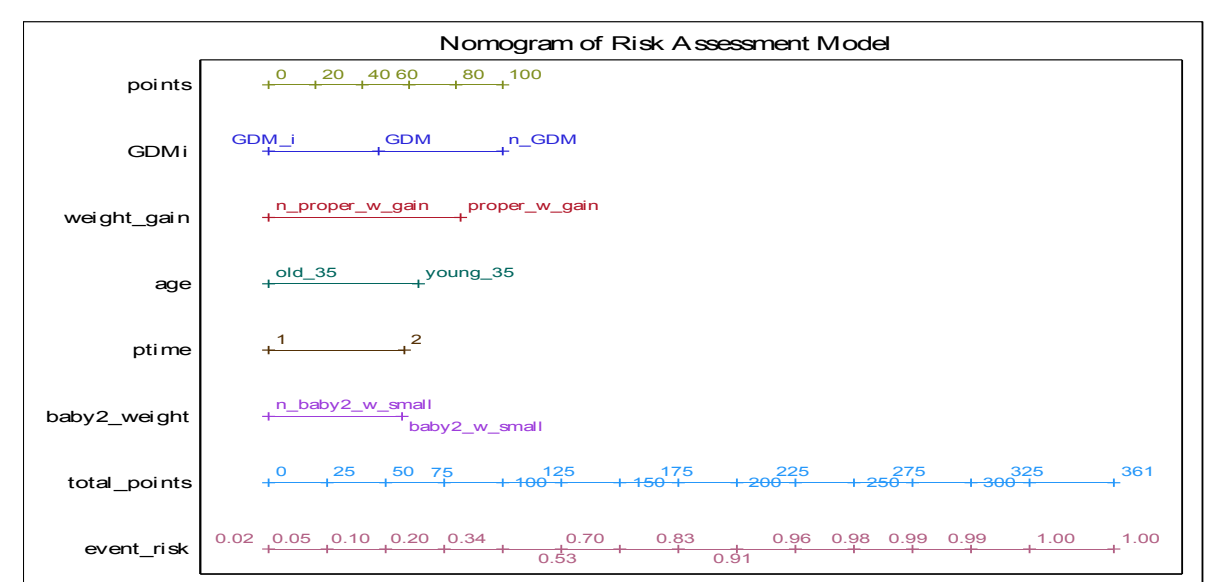


Figure 1 Nomogram of risk assessment model