

ROLL OVER TEST FOR PREGNANCY INDUCED HYPERTENSION

by

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Pregnancy induced hypertension was diagnosed where previously normotensive women showed a sustained rise of pressure to 140/90 or more on at least two occasions 24 hours apart, after the 24th week of gestation in the absence of evidence of an underlying cause for hypertension. Gant *et al* (1974) reported a method of predicting the development of pregnancy induced hypertension the "Roll Over Test". This involves placing the patients who are between 28 to 32 weeks gestation in the left lateral decubitus position until a stabilised blood pressure was determined. Following this, the patient "rolls over" to the supine position and blood pressure was recorded immediately and again after 5 minutes. An increase in diastolic pressure of 20 mm Hg was positive response.

The present study was undertaken to confirm the use and accuracy of the "Roll Over Test".

Method of Study

Normal primigravid and multigravid

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women between 28-32 weeks of gestation were chosen. The method to record the blood pressure described by Gant *et al* (1974) was followed. The recordings were done by electronic blood pressure apparatus to rule out the potential error of acoustic evaluation of blood pressure. The results were noted in a separate register with all particulars by the senior resident. The records were analysed after delivery to find out whether pregnancy induced hypertension occurred and the accuracy of this predictive test.

Results

Table I: Relationship between % of accuracy and results in primigravid.

TABLE I
Relationship Between Percentage of Accuracy and Result in Primigravid

Results	Total No. of cases	No. of cases who developed P.I.H.	Accuracy %
	60		
Positive	25	10	40%
Negative	35	1	97.1%

Table II: Relationship between % of accuracy and results in multigravid.

TABLE II
Relationship Between Percentage of Accuracy
and Results in Multigravid

Results	Total No. of cases	No. of cases who developed P.I.H.	Accuracy %
	90		
Positive	15	3	20%
Negative	75	4	94%

Discussion

A predictive test for toxemia would be of greater help in clinical management and research since all pregnant patients are at risk to develop toxemia. This study revealed that 40% of positive primigravid and 33% of positive multigravid patients developed pregnancy induced hypertension, in comparison to 90% in Gant's series. The negative roll over test patients have lesser chances of developing PIH. Though this test cannot be an absolute predictive test for pregnancy induced hypertension, it can definitely be helpful in selecting patients for prophylactic therapy by those who believe in monitoring nutrition, weight gain, and salt intake. Marshall *et al* from their analysis conclude that negative test in their series did not develop pre eclampsia. The accuracy of prediction reported by Singh *et al* in primigravid was 75% and in multigravid patients 71.4%.

Summary

Roll over test to predict pregnancy induced Hypertension was undertaken in 150 randomly selected patients. Sixty primigravid and 90 multigravid patients were studied between 28th and 32nd week of pregnancy. These cases were evaluated after delivery to determine whether pregnancy induced hypertension had occurred. In primigravid women with a positive roll over test pregnancy induced hypertension could be predicted in 40% of cases, while a negative test predicted that it would not develop in 97%. In multigravid patients, 33% who had positive test later developed hypertension. Negative test was accurate in 94% of cases. Negative Roll over test was found to be more accurate than positive test.

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References

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