

## ROLL OVER TEST IN PREGNANCY

by  
(MRS.) C. SARODE  
and  
(MRS.) S. GANDHI

### SUMMARY

The Roll over test was carried out in 140 primi gravida patients between 28-32 weeks of gestation. The accuracy of roll over test in positive cases was 67.5% and 92% in negative cases, indicating a highly significant correlation between positive roll over test and subsequent development of pre-eclampsia. A negative test shows high correlation with absence of subsequent pre-eclampsia.

#### Introduction

Gant and Wosley (1974) in the process of conducting angiotension II infusion tests noted that in some patients who are moved from a position in which they are lying on side to their back develop a sudden rise of B.P. These women subsequently developed hypertension. This observation led to the study and development of the Roll over test.

The study of roll over test was undertaken at M.C.H., Nagpur on 140 patients

primigravida between 28-32 weeks of gestation. None had a past or present history of hypertension and renal disease. They had regular A.N.C. check up with weight record, urine examination and presence of edema. No alteration of sodium intake in diet was made.

Pre-eclampsia was classified as:

(1) *Mild*—Blood pressure taken 6 hourly as 140 systolic or more but below 160 mm.Hg. and diastolic less than 100 mm.Hg.

TABLE I  
*Diastolic Blood Pressure in Patients With Negative and Positive Roll Over Test*

Roll over test	Diastolic B.P. in lt. lateral position		Diastolic B.P. in Supine position		Mean diff. of B.P. in mmHg.
	Range	Mean	Range	Mean	
Positive	30 to 60	37.75	50-90	71.15	33.30
Negative	20 to 60	55.2	50-80	67.5	12.3

between April 1979 to April 1980. All were

From: Dept. of Obstetrics & Gynaecology, Govt. Medical College, Nagpur.

Accepted for publication on 14-7-1983.

(2) *Severe*—Blood pressure systolic 160 mm Hg and above and diastolic B.P. 100 mmHg or above.

(3) *Eclampsia*

*Observations*

In the 140 patients studied 40 showed positive roll over test and 100 negative roll over test. The Roll over test was 92% accurate in the cases showing negative test.

It was evident that patients who had positive roll over test showed mean diffe-

92.6% in negative test and 93.1% in the positive test.

In 1977 George Marshall and Robert Newman studied 100 patients, and they accurately predicted the future presence of hypertension in 89 out of 100 patients.

John Gudson and Anderson studied 60 primis and showed in his study that negative test gives a good indication that pregnancy induced hypertension would not develop later.

In 1975 to 1977, Mujumdar and Deshmukh (1979), Karna (1977) studied 50 patients and their accuracy was 66.67% in positive test and 94.5% negative test.

TABLE II

*Percentage of False Positive and False Negative*

Roll over test	No. of cases	False +ve	False -ve
Positive	40	13	—
Negative	100	—	8

TABLE III

*Clinical Outcome in Positive Test*

Total No. of cases	Total No. of developed P.E.T.	Mild	Severe	Eclampsia
40	27	26	1	—

TABLE IV

*Clinical Outcome in Negative Test*

Total No. of cases	Total No. P.E.T	Developed	Mild	Severe	Eclampsia
100	8		6	2	Nil

rence in diastolic B.P. between two position of 33.30 mmHg and in patients who had negative roll over test the mean difference was 12.3 mmHg.

*Discussion*

In 1977 Karbhari Harrigan studied 178 primigravidas showing accuracy of test as

*References*

1. Karbhari, D. and Harrigan, D. T.: *Am. J. Obstet. Gynec.* 127: 620, 1977.
2. Karana, S.: *Ind. J. Obstet. Gynec.* 29: 97, 1979.
3. Mujumdar, Baha, S. and Deshmukh, K. K.: *J. Obstet. Gynec. India.* 29: 353, 1979.
4. Newman, R. L.: *Am. J. Obstet. Gynec.* 127: 623, 1977.