

## BREAST STIMULATION FOR CERVICAL RIPENING

By

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### SUMMARY

The effectiveness of breast stimulation in ripening the cervix with term gestations was studied.

Sixty patients who had completed 38 weeks of gestation were selected and divided into two groups: treatment and control.

In the treatment group, gentle breast stimulation was performed for one hour three times a day. Each breast was gently massaged alternately especially around the nipples, using alternate hands for a period of 10 minutes.

A significant change in the Bishop Score was noted in the treatment group compared to the controls.

Breast stimulation was found to be a simple, natural, cheap, noninvasive and effective method of ripening the cervix.

No uterine hypertonus was detected. No maternal or fetal complications were noted as a result of this treatment even in high risk pregnancies.

Lactation was found to be better and easier in mothers who had used breast stimulation for cervical ripening.

### Introduction

Obstetricians have long been aware of the relationship between the physical state of the cervix and successful induction of labour. It was Cocks who first classified cervixes as ripe and unripe while Bishop in 1964 proposed his now famous scoring system.

Many methods of altering the state of cervix prior to induction of labour have been proposed; we were encouraged by the success of Elliott and Flaherty and Salmon *et al* who conducted a study to

expose the effectiveness of breast stimulation for ripening the cervix in term gestation.

### Materials and Methods

Sixty patients who had completed 38 weeks of gestation were selected and assigned to treatment and control groups; of the 30 patients in the study group, 8 patients had an obstetric indication for ripening while 22 had normal term pregnancies. In the control group all 30 patients had normal term gestations. Of the patients with an obstetric indication for ripening 3 were postdated, 3 suffered from pregnancy induced hypertension, 1 was a diabetic

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and 1 had Rh isoimmunisation. All patients in the study had a normal kick count prior to participation in the study, and those in the high risk group had a reactive N.S.T. as well.

All patients had their cervical score assessed before commencement of the study and subsequently after 24 hours and 72 hours, by the same obstetrician. In the study group the method and duration of breast stimulation was strictly supervised.

Patients in the control group were asked to avoid any stimulation of the breast.

The cervical score of each patient was then determined by the standard Bishop scoring system.

### Results

As seen in Table I there was a significant change in the cervical Bishop scoring in the group where breast stimulation was carried out as compared to the control group.

Both the patients with obstetric indication for ripening as well as normal patients showed a favourable response.

As seen in Table II 36.3% of the normal patients who underwent breast stimulation went into spontaneous labour within 3 days as compared to just 6.6% in the control group.

Also the mean average number of days for patients to go into labour was significantly reduced to 4.5 days as compared to 10.8 days in the control group. There were no foetal complications in the current study.

### Discussion

It has been shown that the state of the cervix is related to the onset of labour and that a ripe cervix presages an earlier onset and shortens duration of labour as compared to an unripe cervix.

Consequently the successful induction

TABLE I  
Average Change in Bishop Score

Mean values	Study group		
	Medical indication	Normal term patients	Control group
1st Bishop score	3.5	3.4	3.6
After 24 hours	4.5	4.5	3.6
After 72 hours	7.1 (p < 0.01)	6.9 (p < 0.01)	3.8 (N.S.)

TABLE II  
Correlation of Breast Stimulation with Onset of Labour

	Study group	Control group
	(Breast stimulation + in normal patients)	(No breast stimulation)
Total patients	22	30
No. in labour within 3 days	8 (36.3%)	2 (6.6%)
Mean average days taken for patient to go into labour	4.5 days	10.8 days



of labour depends to a large extent on the ripeness of the cervix. *Conclusion*

Of the various methods used to ripen the unfavourable cervix none except breast stimulation are natural to the body's physiology.

The findings of our study compare favourably with those of Elliot and Flaherty and Salmon *et al* however both these studies were conducted entirely on normal patients while in the current study 8 patients had an obstetric indication for ripening. All these 8 patients responded favourably to breast stimulation.

There were no fetal complications in any of the patients in the current study unlike the study of Lenke and Nemes who demonstrated adverse effect on the foetus in 4% of their patients. However, their study utilised simultaneous bilateral breast stimulation, unlike ours where unilateral stimulation was done. Viegas *et al* had also demonstrated temporary foetal bradycardia resulting from uterine hypertonus due to bilateral nipple stimulation.

The actual mechanism by which the cervical changes and onset of labour are initiated is not known but it is thought to be due to oxytocin release, whether prostaglandins or other factors are important, is yet to be determined.

A significant change in the Bishop score was noted in the treatment group as compared to the controls.

Breast stimulation was found to be a simple, natural, cheap, non-invasive and effective method of ripening the cervix.

No foetal or maternal complications were noted as a result of this treatment even in high risk pregnancies.

Lactation was found to be better and easier in mothers who had used breast stimulation for cervical ripening.

As a corollary it would be worthwhile to study the incidence of the preterm labour in patients who conceive in lactational amenorrhoea and persist with breast feeding through their pregnancies.

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