

# CONCEPTION FOLLOWING AMPUTATION OF CERVIX

by

(Mrs.) V. R. BADHWAR,\* M.D., D.G.O., D.F.P.

and

(Miss) S. S. RANADIVE,\*\* M.D., D.G.O., D.F.P.

## Introduction

With the expanding knowledge of reproductive physiology, the cervical factor is occupying an important place in infertility investigations. The intact and undamaged cervix with its normally functioning glandular structure, and the cervical mucus with its structural changes during the ovarian cycle assume a vital importance in sperm transport and capacitation.

The cervical amputation is discouraged by Orr (1961), in women who want to preserve the child-bearing function, as it reduces the conception rate by 25%. It also results in increased hazards during pregnancy and labour. Amputation of the cervix results in the removal of endocervical glands, stenosis of the cervical canal in some, distortion and shortening of cervical canal in others.

This paper deals with the cases of cervical amputation and conception following amputation of the cervix.

## Material and Methods

During the 4 years period from January 1975 to December 1978, cervical amputation was done in 36 patients at L.T.M.G. Hospital, Sion, Bombay. Of these, 32 patients were followed up for 2-5 years. Conception following cervical amputation

and effect of operation on sexual functions are studied.

## Results

TABLE I  
Age Distribution

Age in years	No. of patients
18-20	8
21-30	22
31 and above	6

The youngest patient was 18 years old and the oldest was 35 years old. 83.3% were below 30 years of age as compared to 57.8% of Kerkar's (1971) series of Fothergills operation from the same Hospital.

## Parity

Table II shows the parity in relation with the degree of prolapse with which the patients presented.

36% of patients developed prolapse after one vaginal delivery. Kerkar (1971) reported 14% and Purandare (1966) reported 25% after first vaginal delivery. In this series, there were 2 nulliparous patients with prolapse.

One 2nd para, 4 3rd paras and one 4th para underwent sterilisation along with cervical amputation. One patient had undergone puerpurel sterilisation, after the 3rd delivery, 7 years prior to cervical amputation.

\*Reader, LTMG H, Sion.

\*\*Registrar, LTMG H, Sion.

Accepted for publication on 1-1-81.

TABLE II  
Parity Distribution

Parity	Total No. cases	Degree of prolapse		
		No prolapse	1st degree	2nd and 3rd degree
Nulliparous	2	—	Nil	2
Para I	14	1	5	8
Para II	12	Nil	2	10
Para III and above	8	1	Nil	7

In this series, as shown in the Table III,

TABLE III  
Symptomatology in Cases of Cervical Amputation

Complaints	No. of patients
Prolapse	36
Sterility	4
Menorrhagia	3
Urinary complaints	2
Miscellaneous	8

prolapse was the main symptom. Four patients came for sterility, 2 had primary sterility and 2 with secondary sterility.

The correlation between degree of uterine prolapse and the utero-cervical length is given in the following Table.

Associated vaginal wall prolapse has been shown in Table V.

TABLE V

Type of vaginal prolapse	No. of cases
Cystocele	24
Rectocele and deficient perineum	28
Enterocoele	4
Urethrocele	1

TABLE IV

Degree of prolapse	Total No. cases	Less than 3.5"	Utero cervical length	
			3.6-4.5"	4.6" and more
1st	7	2	5	—
2nd and 3rd	27	5	15	7
No prolapse	2	1	1	—

TABLE VI

Operative Procedure in Relation with the Length of Cervix and No. of Conception

Operations	Total No. cases	Length of Cx amp:			No. of conception
		1/2"	1/2-1"	1.1-2"	
Fothergills repair	25	5	17	3	9
Fothergills with Ster.	5	1	4	—	—
Amputation of Cx with Perineorrhaphy	5	2	2	1	2
Amputation of Cx with Ster.	1	—	1	—	—
Total No. cases	36	8	24	4	11

The operations done on these patients tabulated below.

In 8 patients, eventhough the utero-cervical length was  $3\frac{1}{2}$ " cervical amputation of  $\frac{1}{2}$ " was done as all of them had chronic cervicitis.

One of our patients had undergone Shirodkar's vaginal repair 3 years prior. She came back with 2nd degree uterine prolapse and secondary sterility for 5 years. Cervical amputation of  $\frac{1}{2}$ " was done. After an year of operation the patient conceived and delivered a full term male baby weighing 3.2 Kg.

In immediate postoperative period, 1 patient developed secondary haemorrhage and local sepsis occurred in two cases. Three cases has urinary tract infection.

#### *Discussion*

Out of 36 patients of cervical amputation, 32 cases were followed up. Seven had undergone sterilisation operation either along with the cervical amputation or prior. Out of remaining 25 patients, 11 patients had conceived. One patient delivered twice after amputation of cervix.

In all we had 12 conception in 11 patients following cervical amputation. Fothergills reported 30 vaginal deliveries in 24 patients undergoing repair operation.

In our series, out of 4 patients seeking advice for sterility 3 conceived, 1 had primary sterility of  $1\frac{1}{2}$  years with associated uterine prolapse had cervical elongation and 2 patients with 5 years and 8 years of secondary sterility with second degree uterine prolapse and third degree pro-

lapse respectively. Corbit (1966) performed cervical amputation in 3 of his patients with prolapse and chronic cervicitis and all of them conceived. The cervical amputation in infertile cases may be of help by removal of congenitally elongated cervix, chronic infections of cervix and alteration in size and position of cervix.

We had no miscarriage following cervical amputation. None required cervical encercelage operation as all the cases had undergone low amputation of cervix.

Onset of labour was spontaneous in all our cases. First and second stages were of almost normal duration, except in 1 patient who developed cervical dystocia and L.S.C.S. was performed. Finn (1948) as well as Corbit (1966) did not experience any difficulty in labour in their series of patients. One patient delivered prematurely at the 7th month, a female baby weighing 850 gms. Two patients are in third trimester of pregnancy.

None of our patients complained of dryness of vagina, dyspareunia or any other menstrual disorders.

Hunter (1955) reports 18% C.S. rate in his series and 40% developed cervical laceration following vaginal delivery. In this series there was no cervical laceration or tear.

Hence we conclude low amputation of cervix is not a contraindication in cases where the patients want to preserve child bearing function.

#### *Acknowledgements*

We thank Dr. J. V. Bhatt, Dean,

L.T.M.G. Hospital for allowing us to use the hospital data.

References

1. Corbit, J. D.: Am. J. Obstet. Gynec. 94: 40, 1966.
2. Fothergills, W. E.: J. Obstet. Gynec. British Empire. 28: 251, 1921.
3. Finn, W. F.: Am. J. Obstet. Gynec. 56: 289, 1948.
4. Hunetr, J. W.: J. Obstet. Gynec. Brit. Emp. 62: 809, 1955.
5. Kerkar, A. V.: J. Obstet. Gynec. India. 21: 48, 1971.
6. Orr, C. J. B.: Am. J. Obstet. Gynec. 82: 578, 1961.
7. Purandare, V. N.: J. Obstet. Gynec. India. 16: 453, 1966.