

CONSERVATIVE MANAGEMENT OF CERVICAL INTRAEPITHELIAL NEOPLASIA BY CRYOTHERAPY

GANGULI GOURI • MUKHERJEE K • VERMA M • GHOSH U. K. • AGARWAL S.

SUMMARY

We presents an analysis of one thousand female patients of chronic cervicitis and CIN in S.R.N. Hospital, Allahabad. A detailed history and clinical examination was carried out. Cervical scrape smear, colposcopy and colposcopic oriented cervical biopsy or endocervical curettage when necessary were done. Patients with chronic cervicitis and CIN were then subjected to cryosurgery in postmenstrual phase without anaesthesia using "eryo super Deluxe A A-4". Nitrous oxide was used as refrigerant at 80°. All the patients were followed up for two years.

The maximum number of patients were of age 30-34 yrs. and parity 1-3. Most common symptom was vaginal discharge. 96.57% cases of chronic cervicitis healed after cryosurgery. 95.0% cases of CIN-I, 90.0% cases of CIN-II and 86.67% of CIN-III healed after cryosurgery. Follow up for one year showed persistent CIN-I and CIN-II in 5% cases each at 1 year. Out of CIN-III, CIN-II was detected in 6.67% and CIN-III in 6.67% cases at 1 year. Most significant side effect of cryosurgery was profuse and watery vaginal discharge. Severe systemic side effects were not observed.

INTRODUCTION

Cryosurgery has been found to be relatively free of complications and can be used effectively on an out patient basis. It has been used with great success by several investigators in treating variety of pathology. Collins et al (1967) treated 100 patients of

chronic cervicitis with cryosurgery. (Town send and Richart (1983) treated 200 patients with cervical intraepithelial neoplasia by cryosurgery. The present study was carried out to observe the effect of cryosurgery in chronic cervicitis and cervical intrapithelial neoplasia.

MATERIAL AND METHOD

In this series 1000 female patients of all

Dept. of Obst. & Gyn. Motilal Nehru Medical College, Allahabad.

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age groups attending the Gynaecology outpatient department of Swaroop Rani Nehru Hospital, Allahabad were studied. A detailed history including menstrual and obstetric history was taken and then thorough clinical examination was carried out. Women with pregnancy were excluded from the study. The patients were investigated as follows :

- Cervical scrape smear study
- Colposcopy
- Cervical biopsy colposcopically directed or endocervical curettage if required

Patients with chronic cervicitis and dysplasia of cervix were then subjected to cryosurgery. Cryosurgery was done post menstrually without anaesthesia using the model "CRYO-SUPER DELUXE AA-4". Nitrous oxide was used as refrigerant at -80°C. The cervix was swabbed with normal saline and a conical probe was inserted to encompass the cervix and extended about 5 mm into endocervical canal. The duration of treatment was timed from the moment the operating temperature was reached and the abnormal area had been frozen. Freezing was stopped when the edge of the ice ball had advanced 2-3 mm. beyond the tissue which appeared abnormal. The average time was 3 minutes. All patients were seen after 6

weeks following cryosurgical treatment for evaluation. Each patient was seen again at 3 months interval until two consecutive negative smears were obtained. The persistence of lesion 3 months after therapy was deemed as treatment failure. Maximum three treatments were given at interval of 12 weeks each. All patients were followed for 2 years. Cervical healing was documented by gross features and by colposcopic examination, repeat cervical scrape smears and cervical biopsy if needed.

OBSERVATIONS

Maximum number of patients were between the ages of 30-34 years and in the parity group of 1-3. Most common symptom was vaginal discharge.

Table I shows the number of cases treated by cryosurgery with the result. 700 cases of chronic cervicitis, 160 cases of CIN I, 80 cases of CIN II and 60 cases of CIN III were treated by cryosurgery. 476 (96.57%) cases of chronic cervicitis healed after cryosurgery while 24 (3.43%) failed to heal, 152 (95.0%) cases of CIN I healed after cryosurgery, while 8 (5.0%) cases failed to heal, 72 (90.0%) cases of CIN II healed after cryosurgery, while 8 (10.0%) failed to heal and 52 (86.67%) cases of CIN III healed after cryosurgery while 8 (13.33%) failed to heal. Post-operative pain, post-coital

Table I

Shows total cases of chronic cervicitis and dysplasia healed after cryosurgery

Lesion	Treated by Cryosurgery	Healed	Unhealed
• Chronic cervicitis	700	676 (96.57%)	24 (3.43%)
• CIN I	160	152 (95.0%)	8 (5.0%)
• CIN II	80	72 (90.0%)	8 (10.0%)
• CIN III	60	52 (86.67%)	8 (13.33%)

Table II

Shows number of cases of residual dysplasia present at 1 year after cryosurgery

Lesion	Total	Negative	Mild	Moderate	Severe
• CIN I	160	152 (95.0%)	8 (5.0%)	—	—
• CIN II	80	72 (90.0%)	4 (5.0%)	4 (5.0%)	—
• CIN III	60	52 (86.66%)	—	4 (6.67%)	4 (6.67%)

bleeding, the menstrual pattern, any vaginal discharge and the diameter of cervical canal were determined before and after healing.

Table II shows the number of cases showing residual dysplasia at 1 year after cryosurgery. Out of 160 cases of CIN I, 152 (95.0%) were negative at 1 year while 8 (5.0%) showed persistent CIN I. Out of 80 cases of CIN II, 72 (90.0%) became negative while 4 (5.0%) showed CIN II and 4 (5%) showed CIN I. Out of 60 cases of CIN III, 52 (86.66%) were negative while 4 (6.67%) became CIN II and 4 (6.67%) persisted as CIN III.

Table III shows effect of lesion size on failure rate of cryosurgery 12 (2.94%) of the cervixes with 1 + lesion size, 20 (4.76%) with

Table III

Shows the number of failures, depending on the size of lesion after cryosurgery

Size of lesion	Cryosurgery		Failures	
	No. treated	No.	Percentage	
1 +	408	12	2.94	
2 +	420	20	4.76	
3 +	172	16	9.30	
Total	1000	48	4.8	

2 + lesion size and 16 (9.30%) with 3 + lesion size failed to heal.

Table IV shows the distribution of cases according to the duration of side effects after cryosurgery and treatment required for them. Pain during or after cryosurgery was present during the treatment, or at the most for 2-3 days and required analgesics in some cases only. Vaginal discharge was present for 4-6 weeks after cryosurgery but did not require any treatment. 90% of patients noted a marked decrease in vaginal discharge once the cervix had healed. The reduction in discharge was closely related to the effectiveness of cryosurgery.

Diameter of cervical canal was decreased in 75% cases but true stenosis was not occurred in any of cases.

Table IV

Shows the side effects of cryosurgery

Side effects	Number		Percentage	
Systemic	—	—	—	—
Pain during cryosurgery	362	36.40		
Pain after cryosurgery	362	36.40		
P/V discharge	872	20.00		
P/V spotting	200	20.00		
Dizziness and flushing	200	20.00		

Dizziness and flushing were present in 20.0% cases.

Vaginal spotting was present for 1-2 weeks but it did not require any treatment.

DISCUSSION

In our study 96.57% cases of chronic cervicitis healed after cryosurgery. Comparable figures of 98.0% and 90.0% were given by Borow et al (1961) and Ostergard et al (1969) Lower figures of 85.0% were given by Sheth (1983). In our study 95.0% cases of CIN I, 90.0% cases of CIN II and 86.67% cases of CIN III healed after cryosurgery. Townsend and Richart (1983) found complete healing in 100.0% cases of CIN I, 94.59% patients of CIN II and 90.56% cases of CIN III. In the present series follow up for 1 year showed persistent CIN I in 5% cases. Persistent CIN I in 5% and CIN II in 5% cases of CIN II at 1 year. Out of CIN III, CIN II was detected in 6.67% and CIN III in 6.67 cases at 1 year. These findings cor-

related with the findings of Kaufman and Conner (1971). Lesion size has a bearing on the healing of Lesion. In our study 2.94% of 1 +, 4.76% of 2 + and 9.3% of 3 + lesion size failed to heal; comprable figures were given by Townsend & Richard (1983) viz 5.0% of 1 +, 7.0% of 2 + and 12.0% of 3 +. Systemic side effects were not observed in any patient as was also seen by Ostergard et al (1968). The most significant side effect of cryosurgery was profuse and watery vaginal discharge.

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