

ROLE OF CRYOSURGERY IN OUTPATIENT MANAGEMENT OF CHRONIC CERVICITIS/EROSION

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SUMMARY

Management of 100 cases of Chronic cervicitis by protocol consisting of pap smear study, cervical biopsy study and treatment with cryosurgery (all done in out patient) revealed dysplasia in 5% and carcinoma in situ in 1% cases.

Out of 98 cases (94 cases of chronic cervicitis and 4 cases of dysplasia) cure was effected in 96 after primary cryosurgery treatment and in 2 after repeat cryosurgery irrespective of histopathology report. Persistent dysplasia was noticed in 1 out of 5 cases and in 1 out of 1 cases and in 1 out of 1 case of carcinoma in situ after first treatment.

Introduction

Due to low socioeconomic conditions, early marriages and repeated childbirths, chronic cervicitis is commonly seen in patients attending Gynaec. outpatient dept. of General Hospitals.

In these cases it is important to pinpoint cases of cervical dysplasia, malignancy, tuberculosis etc. Hence safe and simple procedures as pap smear examination and punch biopsy of cervix should form essential part of management.

So far as treatment is concerned, cryosurgery, where Carbon-di-oxide or Nitrous oxide gas is used as Cryogen is safe, simple, and effective.

It offers unequalled advantages over

electric cauterisation or conisation which are as follows:

- (1) It is hemostatic.
- (2) Size and shape of destruction produced are sharply demarcated and can be precisely controlled.
- (3) No change occurs in the surrounding tissue and no scar tissue or stenosis results.
- (4) Cold has an inherent anaesthetic effect and anaesthesia or hospitalisation is not needed.

Besides being ideal for chronic cervicitis it is also recommended for dysplasia and carcinoma in situ.

Time, temperature and surface area of contact of freezing probe are three important factors which influence the results.

- (a) Longer the freezing time, deeper is the freezing.
- (b) Colder the temperature faster the

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freeze. (N_2O produces $-98^\circ C$ and $CO_2 = 65^\circ C$ temp.).

(c) Total contact surface of probe tip to the tissue being destroyed is important.

Two points which need to be strictly observed are:

(1) Cryoprobe should be applied to wet surface as dry tissue does not freeze readily.

(2) Probe must be well applied to tissue before activating freezing cycle. Probe sticks to tissue and defrosting is necessary before it is released.

Material and Method

One hundred patients of chronic cervicitis in whom careful gynaecological history was obtained and other pelvic pathology was excluded by thorough examination were included in the present study. Cases who had specific vaginitis were excluded.

A pap smear examination was done prior to planning the treatment. In every patient cervical punch biopsy was taken just before cryosurgery was done within one week of cessation of menses. The biopsy reports obtained later, helped in evaluating effectiveness of treatment.

The equipment used in Indian make Super AA₂ multiple cryoprobes supplied by Appaswami and Associates, Madras. N_2O was used in 19 cases and CO_2 in 81 cases. Commercial CO_2 was used which is very cheap and easily available in giant size cylinders.

Freezing was done till ice balls formed, extended 3 m.m. beyond the edge of the probe. Freezing time was 3-5 minutes and probe was released after defrosting. Use of Cusco's speculum avoids vaginal damage.

Patients were called for follow up after

one month and subsequently every fortnight upto six months or more.

Observations

Pap smear were negative for malignancy in all 100 cases (on biopsy 1 patient had carcinoma in situ).

During the procedure one patient complained of dizziness and flushing. No pain or discomfort occurred in any other patient.

All most all patients had vaginal discharge for two to three weeks after treatment.

As seen from Table I 58% patients belonged to age group 26 to 35 years and only 3 patients in the series were postmenopausal. 49 out of 58, had more than 3 children.

Leucorrhoea was the leading symptom in 97 cases and 3 patients gave history of contact bleeding or irregular spotting. Associated with leucorrhoea 7 patients had irregular bleeding, 11 had backache and 6 complained of lower abdominal pain. No patient had any urinary symptom.

Out of 100 cases, 78% patients had 3 or more children and 22% had 0-2 children.

Menstrual cycles were normal in 89 cases. Seven patients had menstrual irregularities as menorrhagia, polymenorrhoea, 1 patient had amenorrhoea of 6 weeks and 3 were postmenopausal when presented with the symptoms.

Table I shows histopathological reports of 100 cases. Dysplasia was diagnosed in 5 cases and carcinoma in situ in 1 case (pap smear was negative). Tuberculosis or any other pathology was not detected in any case.

Table II shows extent of lesion and its relation to treatment. In 69% total lesion

TABLE I
Histopathology Reports and Relations to Age

Type of lesion	No. of cases	Below 25 years	26 to 35 years	36 Years and more	
				more Premenopausal	Post-Menopausal
Chronic cervicitis	94	20	53	18	3
Cervical dysplasia	5	0	4	1	0
Carcinoma—in Situ	1	0	1	0	0
Tuberculosis	Nil	—	—	—	—
Any other pathology	Nil	—	—	—	—
Total	100	20	58	19	3

TABLE II
Distribution and Size of Lesion and its Relation to Cure After First Treatment

Size of lesion	Lesion on ant/Post lip	Lesion on both lips	Total	Time for cure			Total healed after 1st treatment
				Up to 8 wks.	Up to 10 wks.	More than 10 wks.	
Less than 1.5 c.m.	26	43	69	44	17	6	67
More than 1.5 c.m.	9	22	31	7	17	5	29
Total	35	65	100	51	34	11	96

96% cured after one treatment.

was less than 1.5 c.m., while in 31% it was more than 1.5 c.m. In 65% cases lesion was on both lips.

Irrespective of the above, healing occurred in 8 weeks in 51% cases, in 10 weeks in 34% cases and it took more than 10 weeks in 11 cases.

Thus in 96% cases cure was obtained after first cryosurgery procedure and all symptoms relieved.

Out of the remaining 4 cases, the procedure was repeated in 2 patients and both were later cured.

In the remaining 2 cases hysterectomy

was done as in one of the patients dysplasia was persistent and patient was 43 years. The second patient (Age 33 years) had carcinoma in situ and also had mitral stenosis. Failing the cure with one sitting of cryosurgery, decision for hysterectomy was taken as extensive surgery if needed later would have posed more problems.

Repeat pap smears and biopsy were done in all the 5 cases of dysplasia and 1 case of carcinoma in situ during the follow up.

Thus primary cryosurgery did not

effect cure in 1 case of carcinoma in situ and in 1 out of 5 cases of dysplasia.

Discussion

Out of the various methods of producing freezing, use of pressurised gas allowed to expand rapidly after passing through a small orifice is found convenient for cryosurgery.

The expanding gas takes up heat from the surrounding tissue (Joule-Thomson effect) and causes freezing. The absence of electric connections makes the equipment portable and safe to handle.

Cervix is anatomically easily accessible for studying effectiveness of cryosurgery in relation to histopathology of the lesion.

Chronic cervicitis is a common problem and is believed to be associated with chronic endocervicitis making treatment difficult. However, in present study endocervical freezing was not done except for few millimeters and in none of the patients stenosis of cervical canal was noticed after treatment.

Healing was complete in about 10-12

weeks in 96% cases after one treatment and in 2 cases repeat treatment was needed for cure.

With persistent dysplasia or carcinoma in situ after first treatment it appears advisable to do hysterectomy in multiparas.

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