



ORIGINAL RESEARCH PAPER

Pediatrics

TREATMENT OF MOLLUSCUM CONTAGIOSUM IN PAEDIATRIC PATIENTS WITH CRYOTHERAPY (LIQUID NITROGEN)

KEY WORDS: Molluscum contagiosum, cryotherapy, liquid Nitrogen.

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ABSTRACT

Objective - To study the therapeutic efficiency of liquid nitrogen (Liq N₂) in the treatment of molluscum contagiosum (mc) in paediatric patients.

Material and methods - 50 Pediatric patients with mc were treated with topical LiqN₂ application once a week up to 16 weeks.

Results - 88% of the patients of MC were cured in 12 weeks time. Remaining 12% of the patients also responded with the treatment up to 16 weeks.

Conclusion - In pediatric patients of MC, LiqN₂ application can be used as modality of treatment. It needs weekly repetition. In some children it causes burning and stinging; and is inconvenient

Introduction -

MC is a viral infection occurring in humans. It can be caused by DNA virus Molluscum contagiosum virus (Family – Poxvirus)

The incubation period is 2 weeks to 6 months. The disease is contracted from the people by direct contact, through fomites, auto inoculation; and by sexual transmission.

Patient develops multiple tiny papular lesions. The individual lesion is a discrete. Smooth, shiny, pearly white, hemispherical, Umbilicated papule with central pore; in which lies a cheese like core, which may be expressed easily. The lesion begins as minute 1 mm size papules which enlarge up to 5mm size in 6-12 weeks.

Material & methods:-

50 paediatric patients of MC were taken for the study. Detailed history of age, onset and duration, past or family history of MC, history of past treatment was taken.

Each patient was examined thoroughly and number, size, location of the lesions and secondary infection were noted.

Diagnosis was made clinically smear examination with KOH was done in 20 cases to aid the diagnosis.

The patients were advised for cryo therapy by topical LiqN₂ was applied by dipstick method. Wooden stick with a cotton tip was used as applicator. Size of cotton wool tip was kept small (3mm) to avoid damage to the surrounding skin.

Applicator dipped in LiqN₂ flask was applied to the lesion of MC until a frozen halo appears around it is base. A firm pressure was maintained for 5-30 seconds. All one present were treated simultaneously. Application was repeated weekly till complete cure.

Observations & Analysis -

MC is seen more commonly in children going to kindergarten and school as shown in table I. youngest patient was of 1 year. In 20% (10) patients, family history of MC was present.

In 70% (35) patients got cured in 8 weeks as shown in table III. 84% (42) were cured in 12 weeks. 8 patients with extensive lesions (more than 20) responded with 16 weeks treatment. Side effects were found as shown in table IV. 64% (32) complained of burning and stinging at site of application of LiqN₂ application and

cried during application. Local hyper pigmentation was seen in 58% (27). Hypopigmentation in 10% (5), infection in 6% (3), and erythema in 16% (8) was seen.

Number of lesions in patients were as shown in table II.

Discussion -

MC can be treated by various modalities like physical methods, chemical methods, antiviral drugs and immunomodulators. Benign neglect, suggestions and psycho therapy can also be tried in management of MC.

Physical modalities like cryotherapy, RF cautery CO₂ laser, mechanical expression, curettage and tape stripping can be done. Chemical method like KOH (10%, 20%), Liquid phenol, Podophyllin, TCA and keratolytics used. Immunomodulators like imiquimod and interferon- alpha can be given.

Conclusion -

Liq N₂ application is an effective modality of treatment of MC in paediatric age group. However repeated weekly application, pain and stinging sensation and other side effects can decrease patient compliance.

Table I :-Age wise distribution

| Age | No of Patients | Percentage |
|---------------------------|----------------|-------------|
| Toddler (1-3 years) | 14 | 28% |
| Kindergarten (3-5 years) | 17 | 34% |
| School going (5-12 years) | 19 | 38% |
| Total | 50 | 100% |

Table II Number of lesions in patients

| No. of lesions | No. of patients | Percentage |
|----------------|-----------------|------------|
| 1-5 | 10 | 20% |
| 6-10 | 12 | 24% |
| 11-15 | 12 | 24% |
| 16-20 | 8 | 16% |
| >20 | 8 | 16% |

TABLE III :- Response to treatment

| Cured in week | No. of Patients | Percentage |
|---------------|-----------------|-------------|
| 8 | 35 | 70% |
| 12 | 7 | 14% |
| 16 | 8 | 16% |
| Total | 50 | 100% |

Table IV Side effects

| Side effects | No. of patients | Percentage |
|-------------------|-----------------|------------|
| Hyperpigmentation | 2 | 54% |
| Hypopigmentation | 5 | 10% |
| Infection | 3 | 6% |
| Erythema | 8 | 16% |
| Burning/ stinging | 32 | 64% |

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