



## **IADVL SIG Dermatosurgery (2019-2020)**

### **IADVL Academy**

#### **Patient education leaflet: Frequently asked Questions (FAQ's)**

#### **CRYOSURGERY**

**Disclaimer:** This leaflet has been produced to give you general information. Most of your questions should be answered by this leaflet. It is not intended to replace the discussion between you and your doctor but may act as a starting point for discussion. If after reading it you have any concerns or require further explanation, please discuss this with a member of the healthcare team.

#### **1. What is cryosurgery?**

Cryosurgery is the procedure of destruction of diseased tissue using low temperature and hence removal of abnormal tissue after freezing.

#### **2. What are the indications of cryotherapy?**

Cryotherapy is used for treatment of superficial non-cancerous lesions like viral warts, actinic and seborrheic keratoses, Bowen's disease and other benign lesions. It can also be used to treat superficial non melanoma skin cancers (basal and small superficial skin cancer) especially located on the trunk. Cryotherapy is used for genital warts in HIV positive individuals and during pregnancy, vascular malformations, patients on anticoagulants, Elderly patients with pacemakers in whom electrocautery is contraindicated.

#### **What are the commonly used cryogens?**

The commonly used cryogens are Liquid nitrogen, nitrous oxide and solidified CO<sub>2</sub>.

#### **3. What will be done during procedure?**

Cryotherapy is carried out as an out-patient procedure by the dermatologist in a minor operation theater with aseptic precautions and good lighting. The liquid nitrogen is sprayed onto the lesion until the lesion and a small rim around it turns white. Duration



of 5-10 second freeze is average time required. Also sometimes a cotton is dipped in cryogen and then applied over the lesion (dipstick method)

#### **4. What are the methods used for cryosurgery?**

Various methods used include

- An open spray technique using a paintbrush for large, superficial lesions and a confined spray technique for small, discrete lesions closer to vital structures.
- A cryoprobe can be used for vascular lesions but a longer freezing time is required as compared to open spray technique.
- In dipstick method, a cotton bud dipped in cryogen is used for benign lesions and is inexpensive but repeated applications required.

#### **5. Is cryosurgery painful?**

This treatment is well tolerated by most of patients. However, some patients experience mild pain and burning sensations. Local anesthesia is usually not required.

#### **6. What are the contraindications?**

Bluish discoloration of fingers, intolerance to cold, recurrent bcc or scc.

#### **7. What to expect post treatment?**

Erythema, swelling and the formation of a blister can be appreciated at the treatment site. Fluid continues to ooze from the wound, usually for one to two weeks, until a dry crust forms. The crust will eventually fall off by itself. Healing time for head and neck procedures is two to six weeks. Usually, the treated area will eventually look normal, sometimes scarring and discoloration is possible specially in dark skinned individuals.

#### **8. How to take care of treated lesion?**



- Patient will be directed to wash the site daily as the fluid continues to ooze from the wound for few days. There is no need to cover the treated area with a dressing. If it's painful, one can take paracetamol or other pain-relieving tablets.
- Patient also needs to protect the blister with a clean, dry dressing. The blisters will form scabs that will fall off after about 2 - 3 weeks.
- If the scabs become wet, they should be patted dry with a soft towel or tissue.
- It is important not to pick the scab as this will encourage scarring. You can wash the area as normal but pat the area dry.

## 9. What are the possible side effects?

### Immediate side effects

#### early

- Local Pain- cryotherapy is usually well-tolerated but can sometimes be painful. This discomfort can occur both at the time of treatment and after treatment. Painkillers (such as paracetamol) taken for the first 24 hours may relieve the discomfort.
- Swelling and redness- It settles after two to three days. It is common over eyelids, lips, labia and prepuce.
- Blister formation-It settles after a few days as the scab forms. Blisters are to be punctured if they are painful and very uncomfortable, using a sterile needle.
- Infection adding to pain and pus formation. It may require topical antiseptic or antibiotic therapy.
- Syncope in anxious patients (vasovagal reaction).

### Subacute:

- Delayed wound healing after treatment over extremities.
- Hypertrophic scarring– a raised scar can form which appears as a rounded, hard growth on the skin. These are harmless lesions, more common in dark skinned



individuals.

- bleeding

**Subsequent side effects:**

- Atrophic scar- occurs if freezing time is more than 30 seconds.
- Pigmentation changes- the skin at and around the treatment site may lighten or darken in color, especially in dark-skinned people. This usually improves with time but may be permanent.
- Loss of sensation- due to superficial nerve damage, it may result in numbness of the area of skin supplied by that nerve. Relieved in few months.

**10. When to consult your doctor post treatment?**

You should consult as and when your next follow-up is fixed. However, if there is too much pain, swelling, oozing, pus discharge etc. from the treated site, you can fix an early appointment.

**11. What is other Alternative treatment if I don't want to go for cryotherapy?**

There are some other modalities available like electrosurgery, LASER ablation, chemical cautery, or surgical excision of lesion. However, the choice of these alternatives depends on type, site and extent of lesion. You can discuss with your doctor about these options and feasibility in your case