Cryosurgery: An Overview for Patients and Caregivers

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Cryosurgery (sometimes called cryotherapy) is a common technique in dermatology that uses extreme cold, produced most commonly by liquid nitrogen, to freeze and destroy abnormal cells and tissue. Cryosurgery is a minimally-invasive, quick, and inexpensive alternative to more invasive treatment options.

Cryosurgery can be used to treat both cancerous and non-cancerous conditions. It can be used to treat small skin cancers, such as small and early basal cell and squamous cell carcinomas. Cryosurgery can also treat pre-cancerous conditions like actinic keratosis, along with benign lesions like seborrheic keratosis, skin tags, and keloid scars. Cryotherapy is typically not considered first for more aggressive cancerous conditions. Instead, it is usually considered when excision is not recommended, such as for elderly patients unable to undergo excision or those with extremely large lesions.

Cryosurgery should also not be used for undiagnosed skin lesions or for conditions that can be worsened by cold exposure, such as multiple myeloma, cryoglobulinemia, Raynaud disease, cold urticaria, a previous cold-induced injury at the site, and poor circulation at the site.

During cryotherapy, the doctor applies liquid nitrogen to the cancerous tissue using a spray device or cotton swab. Freezing the tumor causes the cells to die once the frozen tissue thaws. Skin cancers typically require multiple freeze-thaw cycles. As with any treatment, there is a risk of the cancer returning with cryotherapy, so regular follow-up visits are recommended.

The potential complications of cryosurgery include cancer recurrence, longer healing time, pain, swelling, loss of pigmentation, scarring, hair loss, bleeding, blisters, and the need for further treatment.

After cryosurgery, the patient may experience redness, swelling, pain, and the formation of a blister at the treatment site. For minor pain, an over-the-counter pain reliever can be used. The site should be gently cleaned daily with soap and water. The treated area should be

prevented from forming a scab by applying petroleum jelly. The healing time for cryosurgery at the head or neck ranges from 4-6 weeks. If cryotherapy was performed on other parts of the body, there are typically longer healing times.

References

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