

MORE EFFECTIVE TREATMENT FOR KELOIDS

Gil Lederman, M.D.

Keloids are benign tumors that occur usually as a result of trauma. The manifestation of these raised, reddish nodules includes being both uncomfortable and unsightly. They are more widely seen especially as new jewelry is puncturing more parts of many bodies than ever before.

Keloids result from excessive connective tissue - tissue that normally repairs damaged areas of the skin. While generally this reparative process returns the skin to its original appearance and topography, in certain instances keloids can grow to large dimensions.

A recent medical article by Klumpar et al from the Dermatology division at Duke University Medical School reveals new data showing a high success rate for disappearance of keloids by surgical resection followed by radiation.

Interestingly, it is observed that keloids occur only in humans. There are no animal models that help predict the most effective therapy. Men and women are equally affected. It is estimated that keloids occur in about 10% of people. A greater proportion of the black population are affected than white.

These benign tumors can occur in most any part of the body. The palms of hands or soles of feet are, however, seemingly exempt. A variety of diseases and conditions are known to be causative including infections of the skin like herpes, smallpox, acne or pilonidal cysts. Similarly trauma to the body such as piercing of the skin or ears, surgery and burns can cause infection. In some cases, the keloids seem spontaneous in origin.

Symptoms include pigmentation of the skin, itchiness, redness, unusual sensations and pain.

The Duke researchers published their results of 186 patients having keloids treated with surgery followed by radiation. Of these, 83 patients were evaluated in 1991 - with a follow up period ranging from less than one year to up to 17 years.

Radiation was delivered either using orthovoltage which is low energy photons or megavoltage electrons. The authors noted that keloids forming after infection had the highest rate of recurrence after treatment. Ear piercing and other surgical procedures were noted as the cause of the keloid in over half of the cases.

Twelve percent of patients had a positive family history of keloids. People who had a family history of keloids had a higher rate of recurrence after treatment than those who had no family history.

Of patients being treated with the two different types of radiation, it was noted that subsequent symptoms were less frequent in those having treatment with orthovoltage radiation compared with electron beam radiation.

A common question is whether this radiation is associated with the development of malignancy in the treated field. These authors noted that up to 17 years after treatment, there was no development of cancer after excision and radiation. The authors noted a control rate of 83%.

In addition to a decreased incidence of symptoms after orthovoltage therapy, the authors also noted that the recurrence rate after electron beam was 21% compared to 15% for orthovoltage.

Another trivia fact is that keloids were not more common to recur in patients with a history of prior keloids if treated with surgical excision and radiation. Sites of the body did not play a role in the effectiveness of therapy.

The authors noted, "Patients' subjective sense of keloid improvement correlated well with the objective appearance of treated areas."

The authors concluded, "The high rate of control achieved with excision followed by radiation therapy and its lack of severe clinical sequelae make it a reasonable keloid treatment. Although its cost is significantly more than steroid injection or ablative therapy only, it may be the treatment of choice for symptomatic refractory or severely disfiguring lesions."

The results here as well as superior results for other skin cancers suggest a therapeutic benefit to this technology.

Obviously there are ways to reduce the incidence of keloids - the main one is to avoid trauma especially ear or body piercing. Those who develop such keloids certainly do not receive the cosmetic result they sought and end up eager to return their body to the way it once was. For those whose keloid was not preventable, this method of treatment - surgical removal followed by a single treatment of radiation therapy - should help minimize symptoms and the unsightliness of what many do not desire to keep - keloids.

You may wish to contact our experts at 212-CHOICES or e-mail questions to gil.lederman@rsny.org.