ACTINIC CHEILITIS

Treatment options

BACKGROUND

Actinic cheilitis (AC) is a potentially malignant disorder of the lips of persons who have excessive sunlight exposure. The ultraviolet radiation can induce the onset of lip cancer, so AC is considered the labial counterpart of actinic keratosis (AK) of the skin. Patients most often exhibiting AC are men age 40 to 80 years with fair skin who sunburn easily and spend long periods of time exposed to the sun. Persons who have low levels of education and poor living conditions are also more likely to develop AC. The vermilion border of the lower lip is the site most often involved. Treatments include a wide range of approaches, but no consensus has been reached regarding which approach is best. A systematic review was done to assess the options and determine which is the best choice for the treatment of AC.

METHODS

The search was conducted in the Medline, EMBASE, Cochrane Library, and Bireme databases. Twenty-nine journal articles were identified, and their results were analyzed based on the type of treatment used, although some evaluated various treatments. The treatments investigated were laser therapy, chemotherapy, surgery, and the application of anti-inflammatory agents.

RESULTS

Laser Therapy

The 19 articles investigating laser therapy included 17 uncontrolled experimental studies and 2 clinical trials. Follow-up ranged from 8 to 262 weeks.

Low-power laser therapy resulted in clinical improvement in 47% to 100% of patients. However, this treatment had a high frequency of adverse effects, most commonly erythema (33.33% to 100%), edema (26.6% to 80%), pain (33.3% to 100%), and crust formation (10.5% to 100%).

High-power laser therapy is used for tissue ablation. Clinical improvement was observed in 60% to 100% of the patients reported. Three of 4 studies reporting histological findings showed improvement in all patients, but clinical improvement varied. The high-power lasers caused more severe side effects than low-power lasers, including paresthesia (33%), granulation at the site (8.3% to 10.5%), and dysesthesia (7.69% to 10.4%). Pain, burning sensation, and edema were also reported.

Chemotherapeutic Agents

Seven articles investigated the use of imiquimod, 5-fluorouracil (5-FU), or ingenol mebutate. Follow-up was between 1 and 68 weeks.

Imiquimod 5% cream was applied topically, with 80% to 100% of patients exhibiting clinical improvement and 2 patients also demonstrating histological improvement. Dysplasia decreased in all patients in one study and in 73% of patients in a second one. Imiquimod caused pain in 12.5% to 100% of patients, ulceration in 33.33% to 100% of patients, and edema in 33.33% to 70% of patients during treatment.

5-FU was assessed in 2 studies. One study showed 5 patients in the 5-FU group had clinical recurrence of AC. The second study demonstrated that topical 5-FU induced clinical improvement in all patients but not histological improvement. The side effects of 5-FU included difficulty eating and speaking in 10% of patients and pain and irritation in 100%.

A single study focused on ingenol mebutate gel, which is used topically. Three of 7 patients had complete clinical improvement, but all the patients suffered erythema, scales, erosions, crusts, and vesicles.

Surgical Treatments

Six articles evaluated surgical treatments. Included were mucosal advancement flap (MAF), vermilionectomy, chemical peel, cryosurgery, and electrodessication. Follow-up lasted from 5 to 72 weeks.

The most common surgical approach was vermilionectomy, which produced severe histological abnormalities in 10 of 20 patients. Classic vermilionectomy was compared with modified versions in 2 studies but these studies only sought functional and cosmetic outcomes. MAF was also compared to primary closure after vermilionectomy, with reconstruction done after both, yielding successful outcomes. Classic vermilionectomy and the W-plasty technique were compared, with the classic technique carrying a greater risk for scar retraction.

Vermilionectomy was shown to be superior to several pharmacological treatments. Side effects caused by this surgery include paresthesia (10% to 33.3%), infection (10%), and necrosis (10%). Patients also reported bruising, swelling, and hematoma development.

Electrodessication produced clinical improvement in 14 patients, but just 2 of 6 patients who underwent biopsies postoperatively had histological improvement. Pain and burning sensation were common side effects of electrodessication.

Cryosurgery was used concomitantly with imiquimod in 8 patients. All demonstrated clinical improvement, but patients reported some pain, local irritation, and redness.

Anti-inflammatory Agents

Two articles investigated the use of diclofenac gel over a follow-up time of 6 to 52 weeks. One that combined diclofenac 3% gel and hyaluronic acid 2.5% showed 44% of patients had complete remission of the whitish plaques and exfoliative areas and 56% had partial clinical remission of AC. The use of diclofenac 3% gel alone yielded clinical improvement in 4 of 6 patients. The side effects of diclofenac gel included edema, erythema, and burning sensation.

DISCUSSION

Although several treatment modalities are available for the management of AC, none showed itself to be clearly better than the others. Thus the evidence available for the various treatments of AC remains inconclusive regarding the best choice for patients.

Clinical Significance

The evidence reviewed was obtained from small patient samples and included a wide range of results. Clinical improvement was often not accompanied by histological improvement. Randomized clinical trials are needed to yield the type of evidence on which clinical practice can confidently be based. Histopathological alterations that occur when treating potentially malignant disorders like AC should be a specific outcome sought for these future studies.

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ALZHEIMER'S DISEASE

Dental care for patients with dementia

BACKGROUND

Alzheimer's disease is the most common cause of dementia, which is a chronic condition associated with aging. Alzheimer's disease and related disorders (ADRD) affect about 8% of the US adult population. These disorders cause progressive loss of mental and behavioral functions, so that the patient becomes unable to function in essentially all areas of life, which includes oral health care. Conventional oral health care delivery systems have failed to address the needs of persons with ADRD and face a wealth of barriers to achieving proper measures for these people. Poor oral health can negatively affect systemic health and well-being for patients with Alzheimer's disease and cause a deterioration of their behavior as well as their susceptibility to aspiration pneumonia, a leading cause of death among older adults, particularly those suffering dementia. The current oral health care status of patients with Alzheimer's disease and strategies for promoting better oral health were presented, along with a tool to assess the process.

CURRENT ORAL HEALTH STATUS FOR PERSONS WITH ALZHEIMER'S DISEASE

Oral Health Status

Older adult patients with dementia and those without dementia show similar degrees of edentulism, numbers of remaining teeth, and decayed/missing/filled teeth (DMFT) index results, but those with dementia tend to have more coronal and root caries along with more retained root tips. Older adults with dementia also are more commonly affected by xerostomia and oral lesions, such as angular cheilitis, ulcerations, and stomatitis, than older adults without dementia.

Barriers to Oral Health Maintenance

Older adults may present several risk factors for rapid oral health deterioration (ROHD), and dentists need to be able to identify these factors. Generally they fall into those related to general health, social support, and oral health. Those with