Recurrent Nevus--Sometimes a Difficult Distinction From Melanoma With Regression

Recurrent Nevus Phenomenon: A Clinicopathologic Study of 357 Cases and Histologic Comparison With Melanoma With Regression.

King R, Hayzen BA, et al:

Mod Pathol 2009; 22 (May): 611-617

A partial biopsy or incomplete clinical history of a prior melanocytic nevus may lead to diagnostic confusion with a regressed malignant melanoma.

Background: Recurrent nevus is a melanocytic lesion developing at the site of the removal of a previous benign nevus. While most cases are easily diagnosed with traditional histopathologic criteria, some cases have considerable histopathologic overlap with cases of regressed malignant melanoma.
Objective: Clinical and histopathologic findings of recurrent nevi are compared to melanoma with regression.
Design: Retrospective study.
Participants: 357 cases of recurrent nevi were compared to 34 cases of melanoma with regression.
Methods: Only cases with the complete medical history and the original and recurrent lesion available for review were included.
Results: The average age of the patients was 32 years, and 72% were female. The most common location was the back with an average time to recurrence of 8 months. Ordinary nevi comprised 64% of cases, dysplastic nevi comprised 27% of cases, and congenital nevi comprised 6% of cases. Four broad categories of recurrent nevi (Types 1 through 4) were defined, varying with the degree of epidermal retiform effacement and location of melanocytes. Melanocytic atypia was identified in 26% of cases. The retiform epidermal pattern was maintained in 15% of recurrent nevi. Histologic overlap with early regressed melanomas was identified in cases with a retiform epidermis and confluent melanocytic growth pattern, pagetoid spread, and cytologic atypia.
Conclusions: While the majority of cases of recurrent nevi could be accurately diagnosed, in cases of partial biopsies in which the scar extends to the edge of the biopsy or if there is no prior knowledge of a previous biopsy, a distinction between a regressed melanoma and recurrent nevus was difficult, especially if the retiform epidermal changes are maintained. Melanomas with late regression resembled Types 1 and 2 recurrent nevi, while melanomas with scarring and preservation of the epidermal retiform pattern resembled Type 3 recurrent nevi.
Reviewer's Comments: This interesting and comprehensive study investigates a very difficult histopathologic problem with excellent clinical-pathologic correlation. If the epidermal retiform pattern is maintained (observed in 15% of recurrent nevi), an absolute distinction from a primary melanoma with fibrosis may be difficult, especially if there is no prior clinical history of a previous melanocytic nevus of the scar extending to the edges of the biopsy. A somewhat unexpected finding was dysplastic nevi comprising 27% of the recurrent nevi. The authors state that with careful correlation with the original biopsy, a confident diagnosis can be reached. Many dermatopathologists grade the degree of atypia with dysplastic nevi, which was not mentioned in this current study. It would be instructive to determine whether the degree of cytologic and/or architectural atypia influences the frequency of recurrence. Finally, although possibly limited by the amount of residual melanocytes, it would be interesting to determine whether proliferation markers such as Ki-67 would be helpful to distinguish between recurrent nevi and regressed melanomas. (Reviewer-Paul K. Shitabata, MD).

Keywords: Recurrent Nevus, Melanoma, Regression

Print Tag: Refer to original journal article

Adalimumab Is Effective, Safe Tx for Refractory Hidradenitis Suppurativa

Long-Term Successful Adalimumab Therapy in Severe Hidradenitis Suppurativa.

Blanco R, Martínez-Taboada VM, et al:

Arch Dermatol 2009; 145 (May): 580-584

It is a good idea to culture and treat significant infections prior to induction of therapy in patients with hidradenitis suppurativa.

Background: Many of us now see tumor necrosis factor (TNF)-alpha inhibitors as viable choices for patients with hidradenditis suppurativa (HS). This miserable condition, with its chronic painful, foul smelling, and disfiguring abscesses typically becomes refractory to antibiotics and other more simple measures and only rarely responds to retinoids. That leaves surgical remedies for most patients, or TNF-alpha blockers. Most of the work to date has reported experience with etanercept or infliximab
. Objective: To report the experience of 1 group using adalimumab.
Design: Case series.
Participants: 6 patients, from 22 to 56 years of age, with refractory HD for 8 to 38 years duration were included. All patients had been treated previously with conventional therapy including at least 1 immunosuppressive drug, such as a systemic glucocorticoid.
Methods: Initial cultures were obtained, and the patients treated with appropriate antibiotics if indicated for at least 2 weeks prior to adalimumab. Subcutaneous adalimumab in 40-mg subcutaneous injections was prescribed every other week. If the disease was inadequately controlled, the dosage was increased to 40 mg/week; persistent clinical remission lead to a dose reduction to every 3 weeks. The authors measured quality of life using the Dermatology Life Quality Indices as well as lesion counts in affected areas.
Results: The authors found that all patients improved in their quality of life and had a sustained reduction in the number of affected regions, nodules, and fistulas. The patients had lesion reductions by the first month and these were improved upon and sustained at the 1-year checkpoint. Two of the patients had gallium scans showing complete resolution at 2 months. Adalimumab was well tolerated by all 6 patients. One patient who had HS and systemic lupus erythematosus experienced a transient worsening of arthritis that resolved within 3 months.
Conclusions: Adalimumab is an effective and safe treatment for refractory HS.
Reviewer's Comments: This article has value because it reports what we would expect of adalimumab in this disease. It is a good article to have referenced for insurance pre-authorizations. Since severe infections sometimes occur in patients with HS, it is reasonable to follow the authors' recommendations mentioned in the article to culture and treat significant infections prior to induction of therapy. (Reviewer-David L. Swanson, MD).

Keywords: Hidradenititis Suppurativa, Adalimumab

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6-TGN Levels Useful for Monitoring Azathioprine Dosage

Thioguanine Nucleotides and Thiopurine Methyltransferase in Immunobullous Diseases: Optimal Levels as Adjunctive Tools for Azathioprine Monitoring.

el-Azhary RA, Farmer SA, et al:

Arch Dermatol 2009; 145 (June): 644-652

For patients with borderline TPMT activity, one should determine whether they are homozygous or heterozygous for wild type TPMT by PCR.

Objective: To determine the optimal levels of 6-thioguanine nucleotide (6-TGN) for disease remission in patients who have immunobullous disease treated with azathioprine.
Design: Prospective uncontrolled patient series.
Participants: 27 patients with immunobullous disease treated with azathioprine were enrolled in the study over a 2-year period.
Methods: Patients initially received a high dose of prednisone; the authors instituted treatment with azathioprine either at the same time or shortly after prednisone induction. Homozygous patients with high levels of thiopurine methyltransferase (TPMT) (>13.7 U/mL of red blood cells [RBCs]) were treated with standard doses of azathioprine of up to 250 mg/day. Heterozygous patients with TPMT levels from 5 to 13.7 U/mL of RBCs were treated with azathioprine at doses of 25 to 75 mg/day. The authors did not enroll any patients who were TPMT deficient. They defined the optimal level of 6-TGN required for remission as the level of 6-TGN when the daily prednisone dose was ≤15 mg and the patient was clear of blisters or active disease. In most patients, a therapeutic level of 6-TGN was reached approximately 1 to 2 months after the initiation of treatment.
Results: 15 patients were excluded either because of gastrointestinal intolerance, failure to comply, or failure to achieve therapeutic benefit. Twelve met the criteria for evaluation of optimal levels of 6-TGN. The range of 6-TGN was 48 to 457 pmol/8 x 108 red blood cells (RBCs), with an average optimal level of 190.7 pmol/8 x 108 RBCs for all studied patients. The mean optimal levels were 179.4 and 205.6 pmol/8 x 108 RBCs for pemphigus and pemphigoid, respectively. Limited disease required lower 6-thioguanine levels, with a mean of 145.3 pmol/8 x 108 RBCs. Serial levels of thiopurine methyltransferase activity were also assessed during this study, and patients with recalcitrant disease showed higher induction of enzyme than did those with responsive disease. There was no significant hematologic toxicity experienced by any patients in this study.
Conclusions: Optimal levels of 6-TGN metabolites for disease remission in dermatology patients are 150 to 300 pmol/8 x 108 RBCs.
Reviewer's Comments: The authors presented a nice treatment algorithm. They recommended a starting dosage of 1.5 to 2 mg/kg daily for patients with high TPMT levels and 25 mg/day for patients with TPMT levels in the heterozygous range. One to 2 months after the initiation of treatment, the 6-TGN level can be determined, and dosage adjustments or discussions about medication compliance are appropriate. For patients with borderline TPMT activity, the authors recommended confirmation with polymerase chain reaction to determine whether they are homozygous or heterozygous for wild type TPMT, or trying conservative increases in the azathioprine dosage while monitoring of the 6-TGN level. (Reviewer-David L. Swanson, MD).

Keywords: Immunobullous, Azathioprine, 6-Thioguanine

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What You Need to Know About Radiation Tx for Melanoma

Role of Radiation Therapy in the Treatment of Melanoma.

Schild SE:

Expert Rev Anticancer Ther 2009; 9 (5): 583-586

Melanoma cells are not necessarily radioresistant.

Objective: To review the literature.
Methods: The author investigated the origin of the common perception that melanoma is a radioresistant tumor. He described the initial studies that documented radioresistance in melanoma cells and analyzed the published evidence in favor of radiation therapy (RT) for primary, adjuvant, or palliative treatment of ocular and cutaneous melanoma. **RT for Ocular Melanoma**. The Collaborative Ocular Melanoma Study included 1300 patients randomly allocated to receive enucleation or brachytherapy with I-125. The 5-year survival rate was 81% for surgery and 82% for radiation; this difference was not statistically significant (*P* =0.48). **RT as Primary Therapy for Melanoma.** In a study of 28 patients with lentigo maligna melanoma (LMM) and 23 lentigo maligna (LM) with 2 LM recurrences, a success rate of >90% was reported. Another study of LM reported a 3-year local control rate of 94% for excision (18 patients) and 90% for radiation therapy (RT) (36 patients). **Postoperative RT for High-Risk Melanomas**. A study from the Mayo Clinic compared lymphadenectomy followed by adjuvant RT versus observation in 56 patients with involved lymph nodes. There was no difference in survival (33 vs 22 months; *P* =0.09). A retrospective review of 509 node-positive patients at M.D. Anderson and Roswell Park treated with lymphadenectomy showed 5-year disease-free survival of 51% with adjuvant RT and 30% without RT (*P* =0.0001). The risk of lymphedema was significantly increased with adjuvant RT (22% vs 9%). **Palliative RT for Melanoma**. In 1 study of 35 tumors in 14 patients, the overall response rate was 97%. The other study showed a complete response rate between 24% and 34%, depending on radiation dose.
Reviewer's Comments: The paper under review today is relevant because it fills an information gap currently existing in dermatologic training and practice. Several conclusions can be drawn. (1) The risk of recurrence after excision of melanoma is increased in cases of extensive perineural infiltration, close or positive surgical margins, or multiple previous recurrences. In these situations, the literature shows that local recurrence is reduced to 4% to 11% when postoperative radiation is provided. (2) Recurrence rates after lymphadenectomy alone can be approximately 50% when nodal basins have a high tumor burden. In-field tumor control after adjuvant RT can be as high as 90%. (3) The incidence of subclinical nodal disease in patients with at least one positive node is 40% to 60%. Irradiation of regional nodes brings the local failure down to only 7%. (4) Symptomatic lymphedema is a problem only after irradiation of groins and axillae. The head and neck and distal extremity nodes can be irradiated with minimal complications. (5) Pain, mass effect, and bleeding can be reduced by palliative radiation of metastatic sites. Even partial responses can improve quality of life and reduce the use of narcotics or steroids and their associated side effects. (Reviewer-Carlos Garcia, MD).

Keywords: Malignant Melanoma, Radiation

Print Tag: Refer to original journal article

Elderly Patients Not Well Represented in Skin Cancer Screenings

Cutaneous Melanoma in the Elderly.

Testori A, Soteldo J, et al:

Melanoma Res 2009; 19 (June): 125-134

Elderly males have thicker melanomas.

Objective: To examine the main causes for delay in diagnosis and relatively poor prognosis in elderly patients with melanoma as they relate to clinicopathologic features of the disease and some age-related changes in mental status, lymphatic drainage, and immunity.
Results: Elderly patients have more lentigo maligna, nodular, and acral-lentiginous melanomas, and more advanced superficial spreading melanomas. Overall, elderly men tend to have thicker melanomas. An increase in Clark level may be related to age-related differences in skin thickness. While up to one-third of the melanomas in the young can develop within a pre-existing nevus, this is rare in the elderly. Self-detection of melanoma becomes more difficult with age. Some of the difficulties include loss of their partner, deteriorating vision, hidden location of lesions like back and scalp, and the presence of multiple seborrheic keratoses with which melanoma can be confused. With regard to staging and treatment of melanoma, there should be no modifications or omissions because of advanced age. Surgery is the standard of care with surgical margins based on Breslow thickness. Recommendations include 1 cm margin for melanomas up to 2 mm in Breslow and 2 cm for deeper tumors. Regardless of age, sentinel lymph node biopsy is appropriate for patients with melanomas with >1 mm in depth as there is no evidence of increased complications after sentinel lymph node biopsy (SLNB) in the elderly. Completion lymphadenectomy should be recommended to elderly patients after a positive SLNB. Unresectable in-transit metastases of the extremities in the elderly can be treated with isolated hypertermic limb perfusion using melfalan alone or in combination with tumor necrosis factor-alfa.
Reviewer's Comments: It appears that the most significant factors causing delayed diagnosis of melanoma in elderly patients are related to impaired vision, abundant pigmented seborrheic keratoses, and the increased incidence of hard-to-self-diagnose melanomas like acral lentiginous or nodular melanomas. It is worrisome that elderly patients are not well represented in screening campaigns. In addition to Breslow depth, advanced age is an independent prognostic factor for death in melanoma patients. At any age, lymph node status is the most important prognosticator for those with intermediate-thickness melanoma, so SLNB and participation in clinical trials should be offered to patients regardless of age. It is important to remember that the 5-year disease-free survival after a negative SLNB is 91%, so once there are no medical contraindications, a similar aggressive oncological approach should be offered to the elderly. The survival rate for SLNB-positive patients is around 77%, but even in these cases, the procedure may help to identify high-risk recurrence and metastatic patients who may benefit from aggressive adjuvant therapy. (Reviewer-Carlos Garcia, MD).

Keywords: Melanoma, Elderly

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Throw Out the Thread-Lifts

Thread-Lift for Facial Rejuvenation: Assessment of Long-Term Results.

Abraham RF, DeFatta RJ, et al:

Arch Facial Plast Surg 2009; 11 (May-June): 178-183

Thread-lifts have poor long-term efficacy for facial rejuvenation.

Background: During the 80s and 90s, facial rejuvenation for the sagging face was addressed primarily through different invasive rhytidectomy techniques. Over the past decade, alternative less-invasive procedures have been advocated. One such technique is the thread-lift. This has been used to suspend the brow, midface, jowl, and neck. Efficacy and longevity of this technique have not been well addressed in the past.
Design/Methods: This was a retrospective chart review of 33 face and neck rejuvenation cases involving the contour thread-lift system. Ten patients received thread-only treatment; the other 23 patients had threads combined with other rejuvenation procedures such as trichloroacetic acid peels, blepharoplasty, lipectomy, and fillers. Ten patients who had undergone non-thread-lift rejuvenations were randomly assigned as controls. Four blinded facial plastic surgeons used preoperative and postoperative photographs to grade results. A scale ranging from 0 to 3 was used, with 0 representing minimal improvement and 3 representing considerable improvement. Patients were divided into 3 groups for comparison: thread only, thread and other procedures, and controls who received other cosmetic procedures but not threads. Scores from the 4 evaluators were summed into a single cumulative score.
Results: Both the control group and combined treatment groups had significantly better improvement than the thread-only group. Skin dimpling and visible subcutaneous knots were reported as complications. Four patients required thread removal due to these complications. Another patient required fat transfer due to lack of efficacy.
Conclusions: Thread-lift provides only limited short-term improvement, which may be the result of edema and inflammation. Poor long-term results and frequent complications mitigate against the use of this procedure.
Reviewer's Comments: This may be the only study on thread-lift procedures with a control group. The main weakness of this study is the small study population, the retrospective nature, and the inclusion of patients with other adjunctive procedures in the study groups. Other trials on this technique have been more positive, but have been of poor study design. A study by Lycka et al. revealed that only one-third of their patients maintained 70% of their original correction after 1 to 2 years. The jury may still be out on this technique, but the Food and Drug Administration has withdrawn approval of the contour thread system due to the high number of reported complications. (Reviewer-Daniel Eisen, MD).

Keywords: Thread-Lift, Facial Rejuvenation

Print Tag: Refer to original journal article

Is Topical 5-FU Effective for Warts?

5% 5-Fluorouracil Cream for Treatment of Verruca Vulgaris in Children.

Gladsjo JA, Sáenz ABA, et al:

Pediatr Dermatol 2009; 26 (May/June): 279-285

Topical 5-FU, used under occlusion, showed some promise for hand warts in this uncontrolled study.

Background: The treatment of warts in children is particularly challenging for clinicians seeking to avoid painful destructive methods such as cryotherapy. Topical 5-fluorouracil (5-FU), applied under occlusion, has shown some efficacy for warts, but uncertainty regarding possible systemic absorption is a particular concern in pediatric patients.
Objective: To determine the safety and efficacy of topical 5-FU for pediatric hand warts.
Design: Open-label pilot clinical study.
Participants: 40 children aged 4 to 18 years with at least 2 hand warts.
Methods: Up to 5 warts on each patient were measured and rated for hyperkeratosis on a numerical scale. Subjects were randomized to apply 5% 5-FU either once or twice daily. Application of 5-FU was preceded by a 10-minute soak in water and light filing of the wart's surface with an emery board. The drug was then occluded with duct tape. Periungual warts were excluded. Warts were assessed at 1, 3, and 6 weeks. In addition, post-treatment follow-up was conducted at 3 and 6 months. Serum 5-FU levels were measured and basic laboratory tests were performed at 6 weeks.
Results: After 6 weeks, 19% of warts treated once daily and 20% of warts treated twice daily completely resolved; 88% of all treated warts showed some improvement. Several of the warts reportedly resolved shortly after the 6-week treatment period without additional treatment. Thirty-eight of 39 subjects had 5-FU levels that were too low to quantify. One subject had a 5-FU level of about 1/1000 of that seen with systemic chemotherapy. There were no serious adverse events, but erythema, hyperpigmentation, and mild erosion were common side effects. Eighty-six percent of patients rated their improvement as moderate to excellent.
Conclusions: Topical 5-FU is a well-tolerated treatment for warts in children**.**
Reviewer's Comments: The lack of a placebo and the modest result make it difficult to determine if the response rate observed is any greater than the rate of spontaneous remission. However, based on this study, topical 5-FU appears safe and without systemic effects in children. Although a placebo-controlled study will be necessary before any conclusion can be drawn, 5-FU appears to yield a similar response to cryotherapy while avoiding the pain and multiple office visits. The study was sponsored by Valeant Pharmaceuticals International, makers of a brand of 5-FU. (Reviewer-Michael S. Kolodney, MD, PhD).

Keywords: Warts, 5-Fluorouracil

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Imiquimod Safe for Pyogenic Granuloma in Children

Pyogenic Granuloma in Ten Children Treated With Topical Imiquimod.

Tritton SM, Smith S, et al:

Pediatr Dermatol 2009; 26 (May/June): 269-272

Topical imiquimod appears to be a safe and effective alternative to surgical treatment of pyogenic granuloma in children.

Background: Pyogenic granuloma has a low rate of spontaneous remission and is commonly treated surgically. Removal of these lesions by excision or curettage can be difficult in young children who are unable to cooperate with the procedure. Topical imiquimod is a toll-like receptor agonist that locally activates the innate immune system. It is Food and Drug Administration approved to treat genital warts, basal cell carcinoma, and actinic keratoses. Imiquimod has shown efficacy for the treatment of hemangioma of infancy, suggesting it has activity against vascular proliferations. A group in Australia had previously published a series involving 5 children with facial pyogenic granulomas successfully treated with topical imiquimod.
Objective: This report provides a longer-term follow-up for the original 5 patients and also includes 5 additional patients.
Design: 10 children (average age, 2.5 years) with pyogenic granuloma of the face ranging in size from 3 to 6 mm were treated with imiquimod. Dosing ranged from 2 times a day to 3 times a week and was adjusted based on clinical response.
Results: All participants experienced local erythema, and 2 developed necrosis of the pyogenic granuloma. None of the children experienced systemic effects. Treatment time averaged 7.8 weeks, and lesions were followed for an average of 10 months after treatment. Three of the lesions completely resolved, leaving no marks on the skin. Three lesions resolved, leaving small red or hypopigmented macules, and 2 of the lesions left small fibrous-appearing papules. One lesion required surgical excision, and one lesion was still being treated after 8 months.
Conclusions: Topical imiquimod holds promise as an alternative to surgical treatment of pyogenic granuloma.
Reviewer's Comments: Imiquimod appears to be reasonably effective for children with pyogenic granuloma, although the response is variable and some of the subjects required prolonged treatment. The authors recommend starting at 3 times per week and increasing to daily application if tolerated. They consider lesions that have not resolved in 2 months as treatment failures. Although I believe imiquimod is an excellent option for children, I would be more hesitant in treating adults with imiquimod without a tissue diagnosis as melanomas can occasionally present as pyogenic granuloma-like lesions. (Reviewer-Michael S. Kolodney, MD, PhD).

Keywords: Pyogenic Granuloma, Imiquimod

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Psoriais and Vascular Disease--Is There a Correlation?

Association of Psoriasis With Coronary Artery, Cerebrovascular, and Peripheral Vascular Diseases and Mortality.

Prodanovich S, Kirsner RS, et al:

Arch Dermatol 2009; 145 (June): 700-703

This retrospective study suggests that psoriasis is an independent risk factor for vascular disease and death.

Background: Chronic systemic inflammatory diseases such as rheumatoid arthritis and systemic lupus erythematosus are known to be important risk factors for atherosclerosis. Recently, evidence has suggested that psoriasis that is severe enough to require systemic treatment increases coronary artery disease and all-cause mortality.
Objective: To examine the prevalence of atherosclerotic risk factors in psoriasis, and to determine if psoriasis is an independent risk factor for vascular disease and death.
Design: Retrospective observational study.
Participants: 3236 veterans with psoriasis and 2500 controls.
Methods: The authors used a computerized database of ICD-9 codes assigned to all patients treated at a VA medical center between 1985 and 2005. Codes for cardiovascular risk factors, vascular disease, and psoriasis were correlated.
Results: Diabetes mellitus, hypertension, smoking, and obesity were all increased in psoriasis patients. The authors then determined the risk of vascular disease in psoriasis patients after subtracting out the influence of diabetes, smoking, hypertension, and obesity. Even after subtracting out the added risk factors, the adjusted prevalence of coronary artery disease was 1.78-fold higher in psoriasis patients, cerebrovascular disease was 1.70-fold more prevalent, and peripheral vascular disease was 1.86-fold more prevalent relative to controls without psoriasis. The difference between psoriasis patients and controls was statistically significant for all types of vascular disease. After adjusting for other risk factors, psoriasis patients were 1.86 times more likely than controls to die during the study period.
Conclusions: Psoriasis is an independent risk factor for vascular disease and death.
Reviewer's Comments: This is a retrospective study, so its findings must be interpreted cautiously. However, the magnitude of the effect on vascular disease and mortality was quite large, suggesting that the findings may be meaningful. Physicians should be aware of a patient's cardiac risk factors before initiating acetretin for psoriasis, as this agent has adverse effects on blood lipids. Moreover, statins should be strongly considered to reduce the risk of vascular disease for psoriasis patients with elevated blood lipids or C-reactive protein. As an added potential benefit, a recent small study suggests that simvastatin may actually improve psoriasis. (Reviewer-Michael S. Kolodney, MD, PhD).

Keywords: Vascular Disease

Print Tag: Refer to original journal article

Curettage-Cryosurgery of Scalp and Face Well Tolerated

Prospective Follow-Up After Curettage-Cryosurgery for Scalp and Face Skin Cancers.

Lindemalm-Lundstam B, Dalenbäck J:

Br J Dermatol 2009; July 14 (epub ahead of print):

Treatment of facial and scalp non-melanoma skin cancers with curettage followed by aggressive cryosurgery produced low recurrence and high satisfaction in Swedish patients.

Background: Electrodessication and curettage is a useful treatment modality for non-melanoma skin cancers located below the neck. It is generally avoided for facial and scalp tumors because of high recurrence rates and a belief that cosmesis may be suboptimal. To reduce the recurrence rate of curettage, this modality may be combined with cryosurgery in a technique termed curettage and cryosurgery (CCS).
Objective: To determine the recurrence rate following CCS of non-melanoma skin cancers of the face and scalp over a 14-year period.
Participants/Methods: 726 Swedish patients with 962 non-melanoma skin cancers were treated with CCS and followed up on a yearly basis. Lesions on the soft parts of the cheeks and between the naso-labial fold and the lips were excluded, as were morpheaform tumors. Tumors as large as 7.6 cm were included in the study. Following curettage and hemostasis, cryotherapy was performed using a "spray cone" technique. The defect from the curettage was isolated using a neoprene cone, and liquid nitrogen was sprayed using a Cry-Ac device to produce a halo of freeze outside the cone of 1.5 mm. The freeze time was 15 to 25 seconds and was performed twice.
Results: Patients were followed up for an average of 42 months with a recurrence rate of 1.5%. The authors calculated that if all subjects were followed up for the full 14 years, the recurrence rate would be <3%. Participants were asked to grade cosmetic outcome as good, acceptable, or poor. One hundred percent of male subjects and 99% of female subjects rated cosmetic outcome as "good." No serious complications were recorded, although about 4% of patients developed superficial infections that resolved with antibiotics.
Conclusions: CCS of the face or scalp is well tolerated with a favorable recurrence rate.
Reviewer's Comments: This large study with long-term follow-up showed impressive cure rates and high patient satisfaction for CCS in Nordic subjects. It remains unclear if similarly impressive results could be obtained in the United States. Many patients may be unwilling to tolerate a draining wound for 2 weeks that results from the CCS technique. I would reserve this method for patients with lighter pigmentation, as secondary intent healing of facial defects produces the best cosmetic results on lighter skin types. (Reviewer-Michael S. Kolodney, MD, PhD).

Keywords: Cryosurgery, Non-Melanoma Skin Cancer

Print Tag: Refer to original journal article

Larval Tx for Leg Ulcers - Are There Advantages Over Usual Tx?

Larval Therapy for Leg Ulcers (VenUS II): Randomised Controlled Trial.

Dumville JC, Worthy G, et al:

BMJ 2009; 338 (March 19): b773

Larval therapy is as good as usual treatment (hydrogel) for leg ulcers but is more painful.

Background: Use of larva to help with wound debridement has been done for many years. Despite the fact that this is a much discussed and sometimes used therapy, there are very little previous data on the topic. One small, randomized controlled trial with only 12 patients has been published using larva for management of venous ulcers.
Objective: To compare the clinical effectiveness of larval therapy with a commonly used technique (hydrogel) for debridement of venous leg ulcers.
Design/Participants: Randomized controlled trial of 267 patients with venous leg ulcers who had at least 25% of the ulcer covered by necrotic material. Patients all had venous or mixed venous and arterial ulcers.
Methods: After consenting to the trial, patients were randomized to receive loose larvae, bagged larvae, or hydrogel applied to their ulcers. The randomized treatment was applied during the debridement phase, which ended when debridement occurred or when treatment was stopped before debridement. After the debridement phase, all patients received a standard dressing with or without compression. The primary outcome measured was time to ulcer healing. Secondary outcomes measured were time to debridement, quality of life, bacterial load, presence of methicillin-resistant *Staphylococcus aureus* (MRSA), and ulcer-related pain.
Results: Time to ulcer healing was not significantly different between groups. Larval therapy significantly reduced the time to debridement, with the time for loose larvae the shortest (14 days) versus bagged larvae (28 days) versus hydrogel (72 days).The paired larvae arms versus hydrogel was significant (P <0.001). Health-related quality of life, bacterial colonization, and MRSA eradication were not significantly different between groups. Mean ulcer-related pain scores were higher in either larvae group compared to hydrogel (P <0.001).
Conclusions: Larval treatments do not reduce the time to healing of venous ulcers, but they do significantly reduce the time to debridement and increase ulcer pain compared to hydrogel therapy.
Reviewer's Comments: Maggot (larval) therapy has been used for years. This study shows that it can work, but it is no better than usual therapy as far as outcomes, and it hurts more than usual therapy. Another article in the same journal looks at cost comparisons of larval therapy versus hydrogel therapy and found that costs were similar. Sterile larvae are difficult to obtain and, given no cost benefit or outcome benefit, there is no reason to use them over usual therapy. (Reviewer-Douglas S. Paauw, MD).

Keywords: Leg Ulcers

Print Tag: Refer to original journal article

TMP-SMX Monotherapy Associated With Tx Failure in Pediatric SSTIs

Empiric Antimicrobial Therapy for Pediatric Skin and Soft-Tissue Infections in the Era of Methicillin-Resistant Staphylococcus aureus.

Elliott DJ, Zaoutis TE, et al:

Pediatrics 2009; 123 (June): e959-e966

b-lactams remain a good first choice for the empiric treatment of skin and soft tissue infections.

Background: Scientific information with regard to community-acquired methicillin-resistant *Staphylococcus aureus* (CA-MRSA) skin and soft-tissue infections (SSTIs) has typically been obtained after there has been the identification of the particular organism. However, in the real world, most SSTIs (even in areas where MRSA is considered prevalent) are treated empirically with antibiotics. That tradition involves monotherapy, even though there are experts and guidelines proposing that treatment for nonpurulent SSTIs should also consider group A *Streptococcus* (GAS), methicillin-sensitive *S. aureus* (MSSA), and MRSA. The authors hypothesize that empiric antibiotic therapy with clindamycin or trimethoprim-sulfamethoxazole (TMP-SMX) would be better choices than the b-lactams.
Objective: To compare the monotherapeutic efficacy of b-lactams, clindamycin, and TMP-SMX in the outpatient management of pediatric nonpurulent SSTI in a MRSA-endemic region.
Design: Retrospective analysis.
Participants: 2096 children; 104 (5.0%) were determined to be treatment failures (ie, required a new antibiotic, hospitalization, or incision and drainage [I&D]) for nonpurulent SSTIs. There were 480 controls.
Methods: Data were aggregated in this nested case-control trial from 5 urban pediatric practices. Cases were identified through the Pediatric Research Consortium as those between 0 and 21 years of age who presented with a first documented SSTI (eg, carbuncle, impetigo, cellulitis, etc). Patients who did not have I&D or cultures and who were treated with b-lactams, clindamycin, or TMP-SMX were included. Both the cases and controls underwent the usual demographic and chart review analysis.
Results: Of the treatment failures (n=104), 27% required admission, 20% required I&D, 20% required a prolonged course of the same antibiotic, and 33% required a different antibiotic. TMP-SMX monotherapy was associated with an increased risk of treatment failure when compared to b-lactams (OR, 2.35; 95% CI, 1.28 to 4.34). However, the risk of treatment failure with clindamycin was not different from that with the b-lactams (OR, 1.40; 95% CI, 0.76 to 2.59). Risk factors for treatment failures with TMP-SMX included fever, abscess, or induration.
Conclusions: When compared with b-lactams, empiric clindamycin monotherapy for SSTIs conveyed no extra benefit. As for TMP-SMX compared to b-lactams, the risk of treatment failure was higher. Therefore, b-lactams may still be considered appropriate empiric therapy for pediatric SSTIs.
Reviewer's Comments: For 95% of these cases, monotherapy worked. b-lactams remains a good first choice. However, be specifically attentive to those with fever or an early abscess formation. Have them return for careful monitoring. (Reviewer-Paul P. Rega, MD).

Keywords: Pediatric SSTIs, Empiric Antimicrobial Tx; MRSA

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Does Bacterial Transmission Increase After Hand Contact When Rings Are Worn?

Impact of Finger Rings on Transmission of Bacteria During Hand Contact.

Fagernes M, Lingaas E:

Infect Control Hosp Epidemiol 2009; 30 (May): 427-432

In this study, finger rings were associated with increased carriage of gram-negative bacteria on the hands of health care workers.

Background: Previous studies have suggested that rings worn on the finger may be a source of increased bacterial contamination, but few studies have attempted to correlate ring wearing and transmission of bacteria from hands.
Objective: To prospectively study the impact of finger rings on the transmission of bacteria from the hands of health care workers (HCWs).
Methods: HCWs at 2 Norwegian hospitals participated in the study if they wore at least one ring on one hand and no ring on the other hand or if they wore no rings. Participation was voluntary and results were treated anonymously. Data on length of nails, occupation in the hospital, estimated time since last hand washing, and most recent use of gloves were obtained. Only non-medicated soap and 70% ethanol were available for hand hygiene. Transmission of bacteria during hand contact was measured by having the HCW shake each hand with an investigator wearing sterile gloves for 30 seconds. Samples for quantitative cultures were obtained from the gloved hands of the investigator and the bare hands of the HCW. *S aureus* detection employed mannitol salt agar plates. Gram-negative bacteria were recovered from lactose bromthymol agar.
Results: 200 HCWs were included in the study: 100 wore rings and 100 wore no rings. Overall, 90% were women and 57% were nurses. Only 15 (7.5%) were physicians. The median bacterial load recovered from all bare hands was >900,000 CFUs. Significantly higher numbers of bacteria were transmitted from the hands of HCWs with rings than from those not wearing rings. *S aureus* was recovered from 26% of HCWs but was not associated with ring wearing. Gram-negative bacteria were recovered from 55% of HCWs.
Conclusions: A significant correlation was found between the total bacterial load on HCW hands and the bacterial load transmitted to sterile gloved hands. In addition, significantly higher bacterial loads on ringed hands compared to bare hands were found in this study.
Reviewer's Comments: The authors discuss several limitations to their very interesting study. First, this study did not discriminate between permanent microflora and transient contamination. Transient bacteria may detach more easily from the hand and be potentially more serious as a source of contamination. In addition, these results are not valid for wet contact or contacts of longer duration. Lastly, potential other confounders for understanding transmission from rings have not been completely ruled out by this study. However, these provocative results suggest that removing rings should be considered for all HCWs as an economical intervention. (Reviewer-Stephen B. Greenberg, MD).

Keywords: Hand Hygiene

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