Lupus panniculitis is difficult to differentiate histologically from panniculitis-like T-cell lymphoma.

**Objective:** The authors characterize their patients who had subcutaneous panniculitis-like T-cell lymphoma (SPTCL) and also showed signs of lupus erythematosus (LE).

**Participants/Methods:** The authors describe 5 patients with a diagnosis of SPTCL and simultaneous clinical and histopathologic features of LE retrieved from the dermatopathology files at the Medical University of Graz in Austria. All patients had biopsies studied under H&E, immunoperoxidase using various monoclonal antibodies, polymerase chain reaction (PCR) for the T-cell receptor (TCR)-gamma gene seeking clonal rearrangement, and in-situ hybridization for Epstein-Barr virus.

**Results:** All 5 patients had clinical lesions of lupus panniculitis and a combination of serologic abnormalities and end-organ dysfunction including positive anti-nuclear antibodies, positive anti–double-stranded DNA antibodies, renal abnormalities, and or anemia. The histologic evidence of LE was variable. Two patients had changes of LE profundus with a large number of B cells, including germinal centers, plus interface dermatitis and dermal mucin. Two additional cases had interface dermatitis and a positive direct immunofluorescence, respectively. In the last patient, no histologic evidence of lupus was documented. Importantly, the biopsies from all 5 patients showed the presence of lymphocytes with pleomorphic nuclei and a cytotoxic CD3+/CD8+/βF1+ immunophenotype consistent with SPTCL. PCR analysis showed monoclonality in 3 cases and polyclonality in 2 cases. Epstein-Barr virus in situ hybridization was negative in all cases.

**Reviewer’s Comments:** The authors demonstrate the coexistence of LE and SPTCL in 5 patients. The cases are very interesting and illustrative because dermatologists know that differentiating these 2 entities can be very difficult when involvement of the subcutaneous fat is the only manifestation of the disease. In general, the most useful histopathologic criteria for distinguishing LE from SPTCL are involvement of the epidermis, lymphoid follicles with reactive germinal centers, mixed cell infiltrate with prominent plasma cells, clusters of B lymphocytes, and polyclonal TCR-gamma gene rearrangement. The take-home message is that patients with apparent lupus erythematous profundus who have atypical lymphocytes in their biopsy specimens should be followed-up closely for the development of T-cell malignancy, which can often be fatal. It is also prudent to perform an age-appropriate cancer screening in all systemic lupus erythematosus (SLE) patients. The literature shows increased incidence and risk of malignancy development in these individuals. Contributing factors include genetic predisposition, chronic antigen stimulus, abnormal immune response, and chronic administration of immunosuppressive medications. Overall, there is a slightly increased risk in SLE for all cancers combined compared to the general population, but the most significant are Hodgkin and non-Hodgkin lymphomas, lung cancer, hepatobiliary, and vulvar/vaginal malignancies. (Reviewer-Carlos Garcia, MD).
40% of Melanoma Patients With Spontaneous Regression Do Not Relapse

Spontaneous Regression of Metastases From Melanoma: Review of the Literature.
Kalialis LV, Drzewiecki KT, Klyver H:


Forty percent of patients with melanoma regression remain disease free on long-term follow-up.

Objective: To review the literature regarding spontaneous regression of metastases from melanoma and the possible mechanisms of regressions.

Participants/Methods: The authors identified 76 cases of spontaneous regression of melanoma metastases reported since 1866. These have been reported in all age groups, with an average age of 44.7 years in women and 46.9 years in men. The youngest patient was a 2.5-month-old baby with transplacental metastases to the chest. The location of metastases included 47 in the cutaneous/subcutaneous, 39 in lymph nodes, 10 in the lung, 8 each in the liver and brain, 4 each in the intestines and bone, and 1 each in choroidal and splenic locations. Factors influencing regression of melanoma included operative trauma, infection, and various immunologic factors. The greatest number of spontaneous regressions was associated with incomplete surgical removal. It is postulated that operative trauma could initiate an immunologic response against the tumor. Infection was reported in 21 cases. It has been suggested that infection produces an immunologic reaction that may also target the tumor. Last, immunologic factors are suggested indirectly by the presence of lymphocytes and melanophages in lesions, evidence of phagocytosis of melanoma cells covered with immunoglobulins in a lymph node preparation of a patient who underwent spontaneous regression, and elevated lymphocyte cytotoxicity against allogenic melanoma cells in a patient with regression of dermal metastases.

Reviewer's Comments: Although regression should not be considered equal to cure, approximately 40% of patients with spontaneous regressions do not relapse either during a long period of follow-up or until death from some other cause. Studies in humans show that unusual patients with >3 primary melanomas develop significant histopathologic spontaneous regression in each subsequent melanoma as compared to patients with single primary melanomas where the phenomenon of spontaneous regression is absent or minimal. It seems that such regression results from the repeated exposure to the tumor, which mimics a self-immunization process. Analysis of the regressing tumors revealed heavy infiltration by T lymphocytes as compared to nonregressing tumors, the predominant of which were T cytotoxic rather than T helper. Mature dendritic cells were also found in significant numbers in the regressing tumors as compared to the nonregressing ones, which demonstrates an active involvement of the different arms of the immune system. Associated with tumor regression were also the loss of the melanoma common tumor antigen Melan A/MART-1 and the presence of Melan A/MART-1-specific cutaneous T lymphocytes in the peripheral blood of these patients, which adds to the evidence that the phenomenon of regression seen in these patients was immunologically-mediated and tumor-specific. (Reviewer-Carlos Garcia, MD).

© 2009, Oakstone Medical Publishing

Keywords: Melanoma, Metastases, Regression

Print Tag: Refer to original journal article
In this article, the rise in melanoma incidence was almost exclusively stage 1 disease.

**Background:** It is stated that excessive ultraviolet light exposure has led to an increased incidence of melanoma in the United States and in the world. Over the years, that alarmist warning has been challenged—there are some who believe it is a reporting artifact. One of the strongest arguments for this opposing view is the observation that there has been a huge rise in melanoma over the past 2 decades without a corresponding rise in death rates from melanoma.

**Objective:** To analyze the changes in melanoma incidence, stage, and mortality in the eastern United Kingdom.

**Design:** Retrospective review.

**Participants:** 3971 patients diagnosed with malignant melanoma between 1991 and 2004 were part of the study; melanoma in situ patients were excluded.

**Results:** The authors found the melanoma incidence rate increased continuously each year from 9.39 to 13.91 cases/100 000 population per year. On the other hand, mortality rates increased only from 2.16 to 2.54 cases/100 000 population per year, and thus, the ratio of change in incidence-to-mortality of 12:1. There were 2192 deaths due to melanoma in the study population. When looking at the types of melanoma that were being diagnosed, the authors found that the rate of stage 1 melanomas showed an increase of 4.81 to 8.98 cases/100 000 population per year, with no increase in the other stages when taken as a group (although there was a slight increase in stage 2 and a slight decrease in stage 4 melanomas in subgroup analysis). The prognosis for the stage 1 cases was excellent, effectively 100% for the study group.

**Conclusions:** In their conclusion, the authors offered 2 possible explanations for their findings. The first was that there really was an increase in incidence of genuine, potentially fatal malignant melanoma. They argued that this was improbable given the unlikelihood that public education and early detection was so successful as to limit the increase to stage 1 disease. They favored the alternative explanation which was that the large increase in incidence was not due to a true malignant melanoma, but rather a change in histopathological diagnosis criteria defining the disease. They postulated that simple or dysplastic nevi that were in fact benign are now being reclassified as stage 1 melanoma. They proposed that until the necessary research is done, encouragement of public anxiety about a melanoma epidemic and excessive avoidance of solar exposure for its prevention is unjustifiable.

**Reviewer's Comments:** This article obviously came with some attitude and bias built into it. Unfortunately, I do not see a resolution to the questions this article and others bring up. You will never see an Institutional Review Board approving any study that says we will not remove lesions with the pathologic diagnosis of invasive malignant melanoma. (Reviewer-David L. Swanson, MD).

© 2009, Oakstone Medical Publishing

Keywords: Melanoma, Diagnosis, Epidemiology, Risk

Print Tag: Refer to original journal article
Aside from brief hand-foot syndrome, patients with squamous cell cancer tolerate treatment with capecitabine for very well.

**Background:** Allograft transplantation is now one of the great success stories of modern medicine, but the dark side of transplantation is the increase in the number of skin cancers and their aggressiveness, particularly squamous cell cancers (SCCs). Capecitabine is a 5-fluorouracil precursor available and approved for the treatment of breast and colon cancer. Some patients on capecitabine treatment have shown resolution of actinic keratoses and a 50% cure rate for advanced SCC.

**Objective:** To study the effect of capecitabine on the development of carcinomas of the skin in a transplant population.

**Design:** Prospective, uncontrolled, therapeutic trial.

**Participants:** 3 patients who developed, on average, >1 new cutaneous carcinoma per month despite regular adherence to sun precautions and dermatologic treatment.

**Methods:** The patients were initially screened with complete blood count along with liver function and renal function tests. They were also screened for dihydropyrimidine dehydrogenase deficiency because of the potential for severe capecitabine toxicity with this polymorphism. Other skin cancer treatment modalities were halted, and patients were initiated on oral capecitabine as monotherapy. The drug was administered on a 14-days-on and 7-days-off schedule for a total of 1000 to 1500 mg/m² per day. The patients had monthly follow-up, including repeat laboratory assessments.

**Results:** The use of oral capecitabine led to a halt in the rate of tumor development and slow improvement in all lesions identified. By the 6 months since study onset, only 1 of 3 patients had required a single surgical excision of previously present SCC compared with the 35 total excisions required for the 3 patients in the 6 months before the study. This was a significant reduction from the baseline tumor rate seen prior to initiation of capecitabine. Numerous precancerous lesions persisted but did not progress in size, thickness, or tenderness troubling enough to warrant biopsy, but rather showed subtle improvement. All 3 of the patients experienced some degree of hand-foot syndrome. The most pronounced case had erythema and pain after each dose of capecitabine that persisted from a few minutes to a few hours. The palms and soles on all patients exhibited varying amounts of desquamation several days after treatment. Other side effects included mild fatigue and muscle aches. None of the patients had diarrhea.

**Conclusions:** Capecitabine had potential for the management of transplant patients with multiple SCCs, but more study is needed.

**Reviewer’s Comments:** I heard about this work through the grapevine and was very excited to finally see it in print. Common side effects reported in up to 35% of patients receiving higher doses of capecitabine include diarrhea, neutropenic fever, stomatitis, fatigue, nausea, and abdominal pain. These effects are dose-related and handled with dose reduction or delay of dose administration. (Reviewer-David L. Swanson, MD).

© 2009, Oakstone Medical Publishing

Keywords: Squamous Cell Cancer, Capecitabine, Chemotherapy, Transplant

Print Tag: Refer to original journal article
TCA CROSS and Fractionated Laser Both Effective for Acne Scars


Kim HJ, Kim TG, et al:


Laser is significantly better for rolling scar, but probably has similar clinical results as CROSS.

Background: Acne scarring is a common and difficult condition to treat. Multiple methodologies have been used in the past, including ablative resurfacing, peels, fractionated lasers, nonablative lasers, and subcision to name a few. Chemical reconstruction of skin scars (CROSS) is a technique that utilizes 100% trichloroacetic acid (TCA) introduced with a sharp instrument into the base of acne scars.

Objectives: To compare outcomes between a 1550 nm fractionated erbium glass laser and CROSS.

Design/Participants: Randomized, split-face study with 20 patients.

Methods: 10 scars were of the rolling type and 10 of the boxcar type. The laser side was treated 3 times within 6 weeks and the CROSS-method was used twice within a 12-week time period. Photographs were taken at baseline and at 12 weeks after the final treatment and graded by 2 independent reviewers using a 4-point scale. Patients were asked to evaluate the results using the same quartile scale. Other data, including pain, erythema and overall downtime, were also included.

Results: Significant improvement occurred with both procedures. For rolling scars, improvement was significantly better with laser than with CROSS. For icepick scars, the 2 treatments were not significantly different from each other. Pain was significantly greater on the laser side, but erythema and down times were significantly greater on the CROSS side.

Conclusions: Both treatment methods were well tolerated and effective, and there was a relatively small difference between the 2 methods.

Reviewer’s Comments: This was a relatively small trial, but the results were interesting. Although laser had significantly better results for rolling scars, the difference in clinical assessment was relatively small. I was disappointed more adverse events (eg, scaring and incidence of pigmentation changes) were not reported and discussed. I have used both of these methods in my own practice and find them both useful for acne scarring, but neither is a panacea for this difficult condition. TCA is quite inexpensive and easy to apply. One wonders whether it is worth the extra expense and time to use a fractionated laser for this condition. (Reviewer-Daniel Eisen, MD).

© 2009, Oakstone Medical Publishing

Keywords: Laser, Tricholoroacetic Acid, Acne Scars, CROSS

Print Tag: Refer to original journal article
Can Bexarotene Gel Effectively Treat Alopecia?

*Phase I/II Randomized Bilateral Half-Head Comparison of Topical Bexarotene 1% Gel for Alopecia Areata.*

Talpur R, Vu J, et al:


Bexarotene gel may be effective treatment for patients with recalcitrant alopecia areata.

**Background:** Alopecia areata (AA) is an autoimmune disorder in which patients experience nonscarring alopecia ranging from small oval patches of hair loss to total loss of scalp hair (alopecia totalis [AT]) or complete loss of all body hair (alopecia universalis [AU]). It may be associated with other autoimmune disorders as well. Treatment with topical or intralesional corticosteroids is typically the first line, and other secondary treatment modalities include topical contact sensitization therapy, laser therapy, and the use of other immunosuppressants.

**Objective:** To evaluate the effectiveness and safety of bexarotene in the treatment of AA.

**Design/Methods:** The authors performed a 2-stage, randomized, phase II bilateral comparison of topical bexarotene gel 1% in patients with AA, AT, or AU. The patient applied the gel to half of the scalp once daily for the first 2 weeks, followed by twice daily through week 24 unless toxicity or irritation occurred. The study evaluator was blinded to the side on which the patient was using the medication. The authors utilized pretreatment photographs and graded the response via the Physician Global Assessment tool. Patients who achieved grade 3 (>50% improvement from baseline) to grade 4 (100% improvement) were considered responders. Toxicity was measured as grade 1 (mild erythema), grade 2 (moderate erythema without vesicles), grade 3 (vesiculation), or grade 4 (ulceration). A total of 42 patients treated between 2003 and 2007 were enrolled. The median age was 37.5 years.

**Results:** The response rate of patients with >50% hair regrowth in the treated side was 12% (5 of 42). Six additional patients (14%) had hair growth on both sides of the scalp, totaling 11 responders. Six of these 11 patients continued treatment for an additional 24 weeks. Three of these patients then achieved complete responses, 2 had >50% regrowth, and 1 had partial regrowth limited to the initially treated side; 73% of patients had dermal irritation, and 4 patients had grade 3 irritation.

**Conclusions:** Bexarotene 1% gel may be beneficial for the treatment of AA.

**Reviewer’s Comments:** In this study, the authors treated patients with AA, AT, and AU with topical bexarotene 1% gel. A small group of patients experienced hair regrowth. It would be difficult to discern if it was the medication itself that led to hair growth or if it was secondary to the irritant dermatitis that occurred in 82% of responders. One concern is the high cost of topical bexarotene gel. Further studies may help elucidate whether we can add bexarotene to our treatment options for AA. (Reviewer-Amy Cheng, MD).

© 2009, Oakstone Medical Publishing

Keywords: Alopecia Areata, Bexarotene, Treatment

Print Tag: Refer to original journal article
Diagnostic Algorithm for Evaluating Muir-Torre Syndrome With Cutaneous Sebaceous Neoplasms

Cutaneous Sebaceous Neoplasms as Markers of Muir-Torre Syndrome: A Diagnostic Algorithm.
Abbas O, Mahalingam M:

J Cutan Pathol 2009; 36 (): 613-619

This diagnostic algorithm provides a framework to evaluate the patient with a sebaceous neoplasm utilizing currently available techniques of immunohistochemistry, MSI analysis, and germline mutational analysis.

**Background:** Cutaneous sebaceous neoplasms are rare but may be associated with the Muir-Torre syndrome (MTS). This syndrome may be associated with several visceral malignancies. Germline mutations in the DNA mismatch repair genes (MMR) are associated with MTS. Tissue immunohistochemistry (IHC) is an effective tool to identify these defects in cutaneous sebaceous neoplasms.

**Objective:** To provide a diagnostic algorithm to evaluate cutaneous sebaceous neoplasms as a marker for MTS.

**Design:** Literature review.

**Results:** A diagnostic algorithm was constructed beginning with a patient <50 years of age with an initial diagnosis of a sebaceous neoplasm outside the head and neck area. Initial immunohistochemical stains include *MSH-2*, *MLH-1*, and *MSH-6*, the most commonly implicated genes in MTS. If there is lack of expression of any of these stains, a microsatellite instability (MSI) analysis is undertaken. If MSI is detected, strict cancer surveillance is warranted for the patient and family members. If MSI is not detected but there is a positive family history, a germline mutational analysis is undertaken; if positive, cancer surveillance is recommended for the patient and family members. If MSI is not detected and there is no family history, then no further evaluation is needed. Finally, if the MMR proteins are intact but there is a strong clinical suspicion for MTS, an MSI analysis is recommended; if positive, it should be followed with a germline analysis. If the MSI analysis is negative, a germline analysis may still be undertaken.

**Conclusions:** This diagnostic algorithm provides a framework to evaluate the patient with a sebaceous neoplasm utilizing currently available techniques of immunohistochemistry, MSI analysis, and germline mutational analysis.

**Reviewer's Comments:** This is an excellent diagnostic algorithm to evaluate a sebaceous neoplasm occurring in a patient with no known personal or family history of internal malignancies. The strengths of this paper include the up-to-date literature and the excellent color photomicrographs illustrating the lack of expression for the MMR genes. Utilizing IHC is a cost-effective and rapid screen to evaluate for possible MTS. (Reviewer-Paul K. Shitabata, MD).

© 2009, Oakstone Medical Publishing

Keywords: Muir-Torre Syndrome, Sebaceous Neoplasms, Mismatch Repair Genes

Print Tag: Refer to original journal article
Can Epinephrine Be Used in Digits of Patients With Vascular Disease?

Local Anesthesia Using Buffered 0.5% Lidocaine With 1:200,000 Epinephrine for Tumors of the Digits Treated With Mohs Micrographic Surgery.

Firoz B, Davis N, Goldberg LH:


A retrospective series of 63 patients suggest that lidocaine with epinephrine is safe to use for infiltrative local anesthesia of digital skin even in the presence of vascular disease.

**Background:** Many practitioners avoid using lidocaine with epinephrine when administering local anesthesia to fingers or toes because they fear causing digital ischemia. Epinephrine is an agonist for alpha- and beta-adrenergic receptors and could theoretically cause necrosis by constricting end arterioles in fingers and toes. However, most reported cases of digital necrosis, resulting from local anesthesia, were associated with the use of procaine or cocaine rather than lidocaine plus epinephrine.

**Objective:** To review the safety of lidocaine with epinephrine for use in Mohs micrographic surgery (MMS) of digital tumors in a series that did not exclude patients with circulatory disorders.

**Design:** Retrospective study from a private Mohs practice based in an ambulatory surgery center.

**Participants:** 63 patients with a mean age of 71 years who presented for MMS of the fingers (n=59) or toes (n=4). Of these patients, 33% had circulatory disorders, 63.5% had hypertension, and 50.8% were receiving anti-coagulation therapy.

**Methods:** Digital tumors were infiltrated with 0.5% lidocaine plus 1:200,000 epinephrine. After surgery, the area proximal to the wound was massaged or squeezed to reduce the volume of fluid in the digit. The average volume of anesthetic injected was 6.92 mL.

**Results:** No patients experienced digital ischemia or necrosis.

**Conclusions:** The authors suggest that lidocaine with epinephrine can be used safely in the digits of most patients with or without vascular disease.

**Reviewer's Comments:** Although the authors used a lower strength of lidocaine and epinephrine than is commonly used, I would assume that 1% lidocaine with 1:100,000 epinephrine is also generally safe. Although I routinely use epinephrine containing local anesthetic to fingers and toes, I would still avoid it in patients with clinically significant peripheral arterial disease. However, this study provides reassurance that the routine use of epinephrine in the fingers and toes of elderly patients is reasonably safe. (Reviewer-Michael S. Kolodney, MD, PhD).

© 2009, Oakstone Medical Publishing

Keywords: Epinephrine, Local Anesthesia, Digits

Print Tag: Refer to original journal article
This well-designed clinical trial indicates that most patients with psoriasis completing 12 weeks of PUVA will achieve a PASI 75.

**Background:** Psoralen plus UVA (PUVA) involves oral or topical administration of psoralen prior to exposure to UVA irradiation. Psoralen becomes activated by UVA to form cross-links with DNA, resulting in immunosuppressive and antiproliferative effects. One theoretical advantage of PUVA over other forms of phototherapy is the ability of the UVA light to penetrate deeper than UVB. Although PUVA was once the gold standard treatment for psoriasis, it has lost popularity in recent years due to the increased use of narrow-band UVB and biologics. Although one study suggested that narrow-band UVB and PUVA were equivalent, other studies have found PUVA clearly superior. It is difficult to compare the efficacy of PUVA with biologics because PUVA has never been evaluated against placebo in a double-blind, randomized trial using the Psoriasis Area Severity Index (PASI).

**Objective:** To evaluate the efficacy of PUVA with a study design that allows comparison to more modern treatments.

**Design:** Randomized, double-blind, placebo-controlled, clinical trial.

**Participants:** 40 patients with severe psoriasis.

**Methods:** 30 patients received PUVA (using oral 8-methoxypsoralen as the psoralen), and 10 patients received UVA plus placebo for 12 weeks.

**Results:** 9 patients in the PUVA group and 3 patients in the control group discontinued therapy prior to the end of the study. Using an intent-to-treat analysis (meaning that patients who quit the study prematurely were still counted in the analysis), 63% of the treatment group achieved 75% improvement in the PASI score (PASI 75). When only subjects who completed the protocol were counted, 86% of the PUVA group achieved PASI 75. None of the control patients achieved PASI 75. Sixty-three percent of the PUVA group experienced nausea compared with 30% of the control group.

**Conclusions:** PUVA provides excellent clearance of psoriasis relative to placebo as measured by the PASI instrument.

**Reviewer’s Comments:** Although this study confirms the efficacy of PUVA, it is unlikely to regain its popularity. PUVA probably carries a greater risk for skin cancer than other forms of phototherapy, and completing 3 treatments per week is difficult for many patients. However, PUVA remains a highly effective option when other systemic therapies are contraindicated or ineffective. (Reviewer-Michael S. Kolodney, MD, PhD).

© 2009, Oakstone Medical Publishing

Keywords: Psoriasis, PUVA, PASI 75

Print Tag: Refer to original journal article
Amino Acid Supplement May Help Treat Trichotillomania

N-Acetylcysteine, a Glutamate Modulator, in the Treatment of Trichotillomania.

Grant JE, Odaug BL, Kim SW: Arch Gen Psychiatry 2009; 66 (July): 756-763

A well designed clinical trial indicates the N-acetylcysteine may be an effective first-line therapy for trichotillomania.

Background: Trichotillomania is a poorly understood disorder that presents as compulsive hair pulling producing clinical hair loss. Unlike generalized obsessive-compulsive disorder, trichotillomania is unresponsive to serotonin-specific reuptake inhibitors. Tricyclic antidepressants have shown some mild efficacy, but the benefit does not appear to be maintained in the long term. N-acetylcysteine is best known as a hepatoprotective antioxidant used to treat acetaminophen overdose. However, N-acetylcysteine is also thought to modulate glutamate-mediated neurotransmission by serving as a substrate for a glutamate-cystine antiporter. Glutaminergic dysfunction has been implicated in the pathogenesis of compulsive behaviors, and N-acetylcysteine has shown benefit for subjects suffering from compulsive gambling and cocaine abuse.

Objective: To determine if N-acetylcysteine is effective for trichotillomania.

Design: Double-blind, controlled, clinical trial.

Participants: 45 adult women and 5 adult men with trichotillomania.

Methods: Participants were first given 1200 mg/day of N-acetylcysteine or placebo for 6 weeks. At week 6, the dose was increased to 2400 mg/d for the remainder of the study. Subjects were assessed using several validated scales for hair pulling as well as self-assessment. Quantitative measures for quality of life and psychosocial functioning were also performed.

Results: Significant improvement was seen after 9 weeks of treatment. After the full 12 weeks, 56% of patients receiving the active drug rated their response as "much or very much" improved compared with only 16% of those receiving placebo. Improvements were also highly significant when measured on quantitative hair pulling scales. Although quality of life and functioning were improved, these changes did not achieve statistical significance. No significant adverse results were observed.

Conclusions: The authors conclude that N-acetylcysteine produces significant improvement in hair pulling for subjects with trichotillomania.

Reviewer's Comments: N-acetylcysteine can be inexpensively purchased as a supplement without a prescription. Given the favorable side-effect profile and low cost, it seems an ideal first-line treatment for trichotillomania. It would be interesting to see further studies addressing other skin disorders resulting from compulsive behaviors. (Reviewer-Michael S. Kolodney, MD, PhD).

© 2009, Oakstone Medical Publishing

Keywords: Trichotillomania, N-Acetylcysteine,

Print Tag: Refer to original journal article