Is Combination Therapy Effective in GA?

Granuloma Annulare Treated With Rifampin, Ofloxacin, and Minocycline Combination Therapy.

Marcus DV, Mahmoud BH, Hamzavi IH:

Arch Dermatol 2009; 145 (July): 787-789

At least 3 months with daily rifampin (600 mg), ofloxacin (400 mg), and minocycline hydrochloride (100 mg) in combination therapy may be effective in granuloma annulare.

Background: Granuloma annulare (GA) is a somewhat common benign dermatosis that usually presents in young people with a limited number of asymptomatic, flesh-colored papules arranged in a ring. Occasionally, especially in older age groups, generalized or disseminated forms can occur. A number of treatments have been described for GA, with mixed results. Histologically, GA is characterized by foci of degenerative collagen associated with palisading, sometimes infiltrating, granulomatous inflammation.
Objective: To test 3 antibiotics (rifampin, ofloxacin, and minocycline) as combination therapy based on the fact that the histology of GA is comparable to paucibacillary leprosy, and that the combination of antibiotics is often used for the latter condition.
Design: Case series.
Participants: 6 patients with biopsy-proven GA. Special stains were performed to exclude infectious etiologies. These patients had disease that varied in extent from localized to widespread and varied in symptoms. All patients had disease resistant to what the authors described as the standard modalities of treatment. This included some systemic antibiotics but primarily topical anti-inflammatory drugs, intralesional steroids, and cryotherapy. No negative control subjects were used.
Methods: Treatment for at least 3 months with rifampin (600 mg), ofloxacin (400 mg), and minocycline hydrochloride (100 mg) combination therapy.
Results: Complete clearance of the plaques was achieved 3 to 5 months after the initiation of treatment in all 6 patients, although some experienced postinflammatory hyperpigmentation.
Conclusions: The treatment was effective, but further studies may be needed to confirm their success.
Reviewer's Comments: This article is interesting because we all know that this condition must have an infectious etiology, although who knows what it is. By definitions, organisms aren't seen and never are culture positive, but remember that >95% of the world's bacteria are not culturable. A number of infections actually can masquerade as GA. Here in Arizona, everyone who presents with disseminated GA gets coccidioidomycosis titers. For GA, we usually try pentoxifylline, occasionally intralesional steroids, and therapeutic ultraviolet light for disseminated disease. My colleague, Dr Dahl, has had some limited success with potassium iodide, used in the same manner as erythema nodosum. The fact that these treatments, a litany of others (including a host of antibiotics, antimalarials, dapsone, isotretinoin, chlorambucil, interferon gamma, cyclosporine, nicotinamide, niacinamide, salicylic acids, chlorpropamide, thyroxine, and dipyridamole), and numerous hocus-pocus modalities have been reported as treatment tells you that nothing is consistent. I've tried just about all of them—I'll bet you have, too. How well have the authors proven their point? Well, case series are the poorest evidence next to case reports. All 6 patients got better, but how many did not improve with the therapy, and what would have happened to their usually self-limited disease had they not been treated? (Reviewer-David L. Swanson, MD).

Keywords: Granuloma Annulare, Antibiotics, Therapy

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Bad News Looms for Scabies Patients

Longitudinal Evidence of Increasing In Vitro Tolerance of Scabies Mites to Ivermectin in Scabies-Endemic Communities.

Mounsey KE, Holt DC, et al:

Arch Dermatol 2009; 145 (July): 840-849

Scabies resistance to ivermectin is an emerging problem, especially in patients with crusted scabies.

Background: We have been fairly comfortable lately with our treatments for scabies. For many of us, our fallback (especially when dealing with community-type epidemics in nursing homes and other institutions) is oral ivermectin, but resistance reports are rising. What does the future hold for ivermectin as a reliable scabicide? Are there any models that can give us a clue?
Objective: To longitudinally evaluate the sensitivity of *Sarcoptes scabiei* to ivermectin in Brisbane, Australia.
Participants: 31 patients with crusted scabies seen over a period of 10 years from 1997 to 2006.
Methods: Scrapings of the patients were examined for the presence of scabies using a dissecting microscope. If numerous live mites were found, the authors tested the mites in vitro for ivermectin sensitivity using a standardized methodology for acaricide sensitivity. Over the decade, 514 mites were obtained for study. For a control, the authors used a negative-emulsifying ointment.
Results: The authors found that, even after excluding 2 patients with previously documented scabies resistance, there was a trend toward increased resistance to ivermectin. The median mite survival time increased from 20 minutes at the beginning of the decade to between 150 and 335 minutes by the end of the decade, with statistical significance of at least double the survival times. There was no change in mite robustness under the control ointment. Furthermore, in one patient with crusted scabies whose condition did not clear with 3 courses of ivermectin, there was marked increase in *Sarcoptes* survival times after therapy compared with before.
Conclusions: Selection for ivermectin-tolerant mites can occur rapidly and persist once established. The authors expressed concerns about the sustainability of using ivermectin in mass drug administration scabies-control programs. They also pointed out the potential problem of patients with crusted scabies serving as point sources for transmission of drug-resistant scabies in communities. They speculated that dealing with the underlying risk factors for scabies epidemics (such as overcrowding, socioeconomic disadvantage, and poor sanitation facilities) may become more important for the control of scabies.
Reviewer's Comments: Unfortunately, to the best of my knowledge, there is no readily available community standardized testing for scabies sensitivity like there is for MRSA. For practitioners, this is something we need to keep high on the radar as we manage elderly patients with scabies who are institutionalized. My current practice has been to recommend to medical directors of nursing homes to treat the entire resident population during outbreaks. However, I might be more wary in the future about neglecting the effort to find index cases. Also, I believe an argument might be made to use multiple modalities to treat patients, such as permethrin or even precipitated sulfur plus ivermectin. (Reviewer-David L. Swanson, MD).

Keywords: Scabies, Resistance, Crusted Scabies, Ivermectin

Print Tag: Refer to original journal article

Proposed Consolidation of Scarring Alopecia Diagnoses

Scarring Alopecia: Clinical and Pathologic Study of 54 African-American Women.

Borovicka JH, Thomas L, et al:

Int J Dermatol 2009; 48 (August): 840-845

Hair trauma is the cause of a number of scarring alopecia, formerly classified as distinctive, in African-American women.

Background: If you care for African-American women, then scarring alopecia is a significant part of your practice. Aside from the general patient set of scarring alopecia, these women also have a higher prevalence of somewhat unique entities like central centrifugal cicatricial alopecia (CCCA). CCCA is a hair loss starting in the central scalp and progressing centrifugally; it occurs almost exclusively in women of African ancestry who use specific hair grooming practices associated with traction. These practices include hair braiding and weaving. Other scarring syndromes more common in this group include hot comb alopecia and hair loss as a consequence of other traumatic hair care practices including extensions, chemical straighteners and curlers, and pressing. Some of these alopecia have been classified under the moniker "follicular degenerative syndrome," because not always has the history of hair trauma been obvious, yet the pathology is the same.
Objective: To test the hypothesis that all these traumatic hair care practices give a common clinical and histopathologic result that is summed up as "alopecia from traumatic hairstyling."
Design: Retrospective review.
Participants: 54 women (age range 21 to 76 years) with the diagnosis of scarring alopecia were selected from 2 private dermatologic practices in the Detroit Metropolitan area on the basis of a histopathologic diagnosis of "scarring alopecia."
Methods: Records were reviewed, and, in many cases, patients were contacted directly.
Results: The average time course for hair loss, prior to the punch biopsy, was 37.13 months (3.09 years). The time course ranged from 3 weeks to 20 years, with hair loss varying in severity and location. Nearly all of the women used chemical straighteners to relax their hair and physical straighteners (eg, hot combing). In most, the practice of physical straighteners was started in youth, by the mothers, but later discontinued in favor of chemical straighteners. Many of the women slept with rollers. The histopathologic findings in the majority were lymphocytic infundibular inflammation and fibrosis.
Conclusions: A combination of physical and chemical insults contributes to the scarring alopecia seen in African-American patients, leading to a common pathophysiologic pathway with scarring alopecia as the end result. These insults unify hot comb alopecia, CCCA, and traction alopecia, which could be more accurately described as "alopecia from traumatic hairstyling."
Reviewer's Comments: The authors also provide a nice guide about the difficulties of caring for African female hair. No surprise that putting the children's hair in tight braids would be the solution favored by expediency. So simply telling a parent or patient no more braids, hot combs, etc is not going to be a solution unless there is a discussion exploring the range of hair care options acceptable. (Reviewer-David L. Swanson, MD).

Keywords: Alopecia, Scarring, Traction, African Americans

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Plausible Link Between CMV and Mycosis Fungoides

Cytomegalovirus: Its Potential Role in the Development of Cutaneous T-Cell Lymphoma.

Ballanger F, Bressollette C, et al:

Exp Dermatol 2009; 18 (June): 574-576

There is an epidemiologic association between CMV infection and mycosis fungoides.

Objective: To research the possible association between epidermotropic cutaneous T-cell lymphoma (CTCL) and specific viruses.
Design/Participants: These authors in France performed a retrospective study of cytomegalovirus (CMV) serology in 124 healthy controls and 73 patients: 12 with small plaque parapsoriasis (SPP), 13 with large-plaque PP (LPP), 27 with mycosis fungoides (MF), and 21 with Sézary syndrome (SS). In the case of CMV seropositivity, CMV polymerase chain reaction (PCR) was performed on lesional skin biopsies.
Results: Overall, there was no significant difference in CMV seropositivity between healthy controls and all patients grouped together. A positive serology was documented in 37.1% of healthy controls and 50.6% of the global group of patients (P =0.19). For individual patient groups, the prevalence of CMV seropositivity was 40% in PP, 66.6% in MF, and 42.8% in SS. The only group with a significantly higher seropositivity compared to controls was the MF group (P =0.009). CMV DNA was not detected in skin biopsies, except in 2 advanced cases of SS just before death.
Reviewer's Comments: To the best of my knowledge, this is only the third study looking at the relationship between CMV and CTCL. The present study is interesting because it contradicts a previous report by Herne et al that found a much higher (97%) CMV seropositivity in patients with MF and SS compared to 57% in healthy bone marrow donors. Even though there is a large difference between the 97% seropositivity in Hern's study and the 66.6% in the present study, there seems to be a plausible link between CMV and MF that is worth exploring further. Unfortunately, for our MF patients, it is very unlikely that we will ever find a single infectious etiology for such a complex disease. Other viruses including HHV-6, HHV-8, HTLV-1, and EBV have been implicated over the years without definitive conclusions. The unifying theory is that viral infection (single or multiple) produces continuous antigenic stimulation, repeated activation of T-cell immunity, increased T-cell proliferation, and resistance to apoptosis, leading then to the accumulation of atypical lymphocytes. Curiously, and in support of this theory, there are documented cases of SS that regressed after treatment with the antiviral drug, acyclovir. (Reviewer-Carlos Garcia, MD).

Keywords: CTCL, Sézary Syndrome, CMV

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Blood Assays Show Significant Value in TB Diagnostics

Performance of Tests for Latent Tuberculosis in Different Groups of Immunocompromised Patients.

Richeldi L, Losi M, et al:

Chest 2009; 136 (July): 198-204

Blood tests for tuberculosis screening are more sensitive than the tuberculin skin test.

Objective: To conduct a study in 3 separate groups of individuals who were immunocompromised and for whom the tuberculin skin test (TST) is the standard for diagnosing latent tuberculosis (TB) infection (LTBI) despite its recognized lack of sensitivity.
Participants/Methods: The authors performed a comparative study of TB tests in 3 groups of immunocompromised patients at risk for latent TB at a single referral center in Italy. These groups included liver transplant candidates (LTC group) with end-stage liver failure, HIV+ individuals (HIV group), and patients with various hematologic malignancies (HM group). All patients received a TST immediately after having blood drawn to measure 1 of 2 interferon (IFN)-gamma release assays (IGRAs): the QuantiFERON-TB Gold In-Tube (QFT-IT) or the T-SPOT.TB test (TS.TB). The TST was read at 72 hours and was considered positive if the skin induration was ≥10 mm in LTC group and HM group, and ≥5 mm in HIV patients, since the latter are known to have a weaker response.
Results: 369 patients were enrolled in the protocol, but 38 were excluded. The following results are derived from 331 patients. Overall, both IGRAs (QFT-IT and TS.TB) were more sensitive than the TST. Positive results were documented in 18.4% of the TS.TB tests and 15.1% of the QFT-IT tests versus 10.9% of the TSTs. Of note, significantly fewer persons were identified with latent TB in the HIV group compared with the LTC group and the HM group. The percentage of positive TB tests was 9.5% in HIV+ patients, 35.8% in the LTC group, and 29.5% in the HM group. Unfortunately, there was a 12% lack of correlation between tests, not only between the TST and the IGRAs, but also between the 2 different blood assays.
Reviewer's Comments: **Conclusions/Reviewer's Comments:** This paper is informative and immediately applicable to dermatology. The incidence of latent TB is on the rise, and we must rule it out when considering patients for biologic or immunosuppressive treatments. Currently, most of us are using the TST, but we worry about significant false-negative results due to cutaneous anergy and false-positive results due to cross-reactions with the Bacillus Calmette-Guérin (BCG) vaccination. The results in this paper are in agreement with those reported elsewhere for patients undergoing anti-tumor necrosis factor (TNF) therapy, and suggest that we can use IGRAs to confirm positive TSTs and to double-check false-negative results. According to my readings, these assays have a reported sensitivity of 100%, specificity of 62%, and most importantly, a negative predictive value of 100%. Also, they are very cost-effective. A recent study demonstrated that screening for LTBI by TST, followed by confirmation with T-SPOT.TB is less costly than screening with the TST alone, as it allows a reduction in the number of people who receive preventive treatment. Additionally, in groups with a high proportion of negative TSTs, screening with the T-SPOT.TB test only may be the most cost-effective. (Reviewer-Carlos Garcia, MD).

Keywords: Latent Tuberculosis, Immunocompromised, Testing

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Consider Using Forehead Skin for Your Next Graft Donor Site

Lower Third Nasal Reconstruction: When Is Skin Grafting an Appropriate Option?

McCluskey PD, Constantine FC, Thornton, JF:

Plast Reconstr Surg 2009; 124 (September): 826-835

Forehead donor skin results in good color and contour matches for lower third nasal reconstructions with full-thickness grafts.

Background: Full-thickness grafts are generally thought to provide an inferior cosmetic reconstruction on the thick sebaceous skin on the lower third of the nose, and, instead, many prefer local or axial flaps for this purpose.
Design/Participants: Retrospective analysis of 55 consecutive patients who underwent reconstruction of lower third nasal defects with full-thickness skin grafts by a single surgeon.
Methods: All defects resulted from Mohs extirpation of cutaneous malignancies. Assessment was by preoperative and postoperative photography. An aesthetic result was defined as having a normal appearance with good contour and color match.
Results: 52 of the 55 patients had good aesthetic results. Three patients, all of who were smokers, had graft failures. Fourteen percent had minor contour or color deficits, and 8% had pronounced color/contour changes. Preauricular skin served as the donor site 35% of the time and forehead skin served as the donor site the other 65%. The average defect size was 8 mm. Among the patients, 62% underwent dermabrasion, and 26% required ≥2 treatments. There were no donor-site morbidities and bolsters were used in all cases and removed 3 to 7 days postoperatively.
Conclusions: Skin grafting for small defects on the lower third of the nose can offer good contour and color match. Forehead donor skin results in more consistently good results for this area. Dermabrasion is a necessary adjunctive step.
Reviewer's Comments: The methodology for this study was relatively poor and inadequately described. The postoperative photographs revealed nice results, but in my experience photos often look better than the reality. Even so, I agree with the authors that full-thickness grafts have a role to play in nasal reconstruction of the lower third of the nose. What I found most interesting from this article was the use of forehead donor skin, which the authors feel provides superior results to that of preauricular skin. Many espouse the close texture and color match of conchal bowl skin to that of the nose. I have found that that donor site results in unacceptable rates of chondritis. I am eager to give this new source of donor skin on the forehead a try myself. (Reviewer-Daniel Eisen, MD).

Keywords: Full-Thickness Grafts, Nasal Reconstruction, Dermabrasion

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Current State of Dermatopathology Education

The Current State of Dermatopathology Education: A Survey of the Association of Professors of Dermatology.

Hinshaw M, Hsu P, et al:

J Cutan Pathol 2009; 36 (June): 620-628

DP education in dermatology residency programs remains an important core strength, but must address several key barriers to improving the overall quality of such programs.

Background: Dermatopathology (DP) is a core competency for dermatology residency programs.
Objective: To summarize the current state of DP education in dermatology residency programs.
Design: Survey
. Participants: Members of the Association of Professors of Dermatology (APD) from 52 dermatology residency programs.
Methods: A 27-question survey was emailed to members of the APD.
Results: A 48% response rate from 109 programs resulted in the following general demographic profiles: ≥2 faculty members teaching DP and 30% of total monthly hours dedicated to DP (median, 7 hours). The majority of residents spend ≥3 weeks on the DP service. The primary textbook was Lever and Weedon. Problem-based learning and journal review were integrated in approximately 50% of the programs. Only 19.2% of programs utilized computer-based learning. Slide teaching sets were utilized in 90% of programs, and in 71.2% of programs, residents review the slides on cases they submit. Specific barriers to DP education include low volume of specimens for teaching, dermatopathologists are located in the department of pathology (rather than the department of dermatology), remote location of the laboratory, and limited space and microscopes for teaching.
Conclusions: DP remains an important core curriculum for dermatology residency programs. Several key barriers to learning include lack of cases, availability of qualified dermatopathologists, and accessibility to laboratory and microscope resources.
Reviewer's Comments: As a dermatopathologist who directs the DP teaching for 2 dermatology residency teaching programs, I find this paper a mixed review. I am in complete agreement with the high potential of computer-based learning, and a focused effort from dermatology residency programs is needed to design a curriculum to utilize appropriate resources. Among the listed barriers to education, there was one idea that was not developed, "an overemphasis on teaching to pass the board examination." I find the greatest barrier in teaching DP is balancing the needs of all the residents, needs that can broadly be divided into 3 groups. The first group of residents only want to learn enough DP to pass the board examinations. The second group are genuinely interested in learning DP to complete their dermatology education, utilizing the information to gain a more comprehensive understanding of each dermatologic disease. A third group is related to the second, but seeks to gain expertise in DP with a goal of signing out their own cases once in clinical practice or pursuing additional training in DP, including a fellowship. A flexible approach to teaching DP needs to be maintained. I appreciate the closing statement by the authors that "at our institutions, we teach DP with the goal that residents develop competency to the level that they improve the care of patients they serve." This is a laudable goal and one that deserves the attention of every dermatology training program. (Reviewer-Paul K. Shitabata, MD).

Keywords: Dermatopathology, Education, Survey, Training Programs

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Major Advance in Tx of BCC

Inhibition of the Hedgehog Pathway in Advanced Basal-Cell Carcinoma.

Von Hoff DD, LoRusso PM, et al:

N Engl J Med 2009; 361 (September 17): 1164-1172

An oral inhibitor of hedgehog signaling (GDC-0449) shows efficacy for the treatment of locally advanced or metastatic BCC.

Background: Basal-cell carcinomas (BCCs) harbor mutations in the hedgehog signaling pathway. Although instrumental during the early stages of development, this pathway is less active in adults because extracellular hedgehog protein binds to patched homologue 1 (PTCH1), which then inhibits signaling by smoothened homologue (SMO). Most BCCs harbor loss of function mutations in PTCH1 that results in constitutive activation of SMO. Less commonly, BCCs harbor activating mutations in SMO. Investigators at the Genentech used a high throughput screen to identify a small molecule inhibitor of smoothened GDC-0449.
Objective: The investigators conducted a phase 1 clinical trial to investigate the safety of the pharmacokinetics of oral GDC-0449 and included 33 patients with BCC.
Design: Open-label, multicenter clinical trial.
Participants: Patients with extensive primary BCC or BCC with metastasis that was not amenable to treatment with surgical excision or radiation.
Methods: Patients received daily oral GDC-0449 and tumor response was measured by physical examination, imaging, or both.
Results: 18 of the 33 patients showed an objective clinical response (defined as a >50% decrease in tumor size) to the study drug. Two subjects exhibited complete regression of their tumors. Of the remaining 15 patients, 11 showed stable disease during the treatment period, which averaged 9.8 months. Adverse effects consisted of hyponatremia in 2 subjects, fatigue in 4 subjects, and atrial fibrillation in 1 subject. GLI1 mRNA, which is induced by the hedgehog pathway, was used as a readout for hedgehog activation. Tissue was available for 26 of the participants and 25 of these 26 tumors showed elevated GLI1 mRNA. The 1 negative sample was from lung metastasis of a patient who showed progressive disease. However, 2 of the patients showing progressive disease did show hedgehog activation.
Conclusions: Inhibition of hedgehog signaling is an effective strategy for treating some patients with advanced BCCs.
Reviewer's Comments: Therapies targeted to specific oncogenic mutations have proven to be effective treatments for certain tumors harboring these mutations. The hedgehog pathway seems to be an ideal target since it is mainly dormant in the adult animal. Thus, it was not surprising that the small molecule hedgehog inhibitor was well tolerated by most subjects. The overwhelming majority of BCCs are easily treated though surgery, radiation, or topical imiquimod. However, the minority of patients with extensive disease could greatly benefit from an effective systemic therapy. It remains unclear why 2 patients with validated hedgehog activation showed tumor progression while taking the drug. Nevertheless, the demonstration that some BCCs respond to a well-tolerated oral medication is a major advance in the treatment of this common malignancy. (Reviewer-Michael S. Kolodney, MD, PhD).

Keywords: Advanced BCC, Hedgehog Pathway, Patched

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Microscopic Satellitosis--Poor Survival and High Recurrence

Microscopic Satellitosis in Patients With Primary Cutaneous Melanoma: Implications for Nodal Basin Staging.

Kimsey TF, Cohen T, et al:

Ann Surg Oncol 2009; 16 (May): 1176-1183

Microscopic satellitosis of the primary melanoma is associated with a very poor survival rate.

Objective: To determine outcomes of melanoma patients with microscopic satellitosis.
Design: Retrospective analysis of a prospective single-institutional database.
Participants/Methods: The authors queried all patients in their institutional database who had clinically localized cutaneous melanoma diagnosed from 1996 to 2005. They identified 3753 patients with melanoma during this time frame; 162 (4.3%) had microscopic satellitosis in the primary lesion. Of these, 38 patients had long-term data. All cases were reviewed by dermatopathologists. Microscopic satellitosis was defined as discrete tumor nests measuring >0.05 mm in diameter and separated from the main body of the tumor by normal reticular dermis or subcutaneous fat. Patients were followed at regular intervals, and recurrence was recorded. Local recurrence was defined as a recurrence within 2 cm of the primary lesion. In-transit recurrence was defined as a recurrence >2 cm from the primary lesion between the site of the primary melanoma and the nodal basin.
Results: Among 38 patients with microscopic satellitosis, 74% were men with a median age of 61 years. The most common site of the primary lesion was the extremity. Lymph node metastases were detected in 68% of patients. Thick melanomas (>4 mm) were present in 66% of patients. Most tumors were ulcerated (71%) and had lymphovascular invasion (71%). The median survival was 52 months, with an estimated 5-year survival rate of 34%. The estimated 5-year disease-free survival rate was only 18%. The sites of first recurrence were systemic (43%), in-transit (27%), nodal (15%), and local (15%).
Conclusions: Microscopic satellitosis in primary melanoma is uncommon but is associated with poor survival and high recurrence rates.
Reviewer's Comments: Since regional, in-transit, and local recurrence rates are high after surgical treatment of microscopic satellitosis, perhaps adjuvant radiation therapy should be considered in selected patients. (Reviewer-Todd M. Tuttle, MD).

Keywords: Microscopic Satellitosis, Cutaneous Melanoma, Nodal Basin Staging

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Patients Are More Concerned About Scars Than Surgeons Think

Insights Into Patient and Clinician Concerns About Scar Appearance: Semiquantitative Structured Surveys.

Young VL, Hutchison J:

Plast Reconstr Surg 2009; 124 (July): 256-265

Patients are highly concerned about scar appearance, regardless of age, gender, ethnic background, or geographic location; these concerns extend across all body areas as well.

Background: Patient distress from postsurgical scars is a reality of the plastic surgeon's world. However, many studies have shown that degree of distress correlates poorly with severity of scarring. We understand intuitively that the patient's sensitivity to the scar is also at issue. Nonetheless, factors that influence this dynamic interaction remain poorly defined.
Objective: To seek insight into factors that determine patient and surgeon distress about scar appearance.
Design/Methods: This paper reports and analyzes the results of a questionnaire administered to patients following a plastic surgical or dermatologic procedure. Through researcher interview, patients were selected for a demographic profile "representative of the general community." Those demographic criteria were not presented. Patients were excluded from the study if they had "no concerns" about their scars. Of 175 patients screened, 97 were included in the study on the basis of demographics. These patients were administered the Self-Completion Form at a facilitator-moderated meeting. In addition, 24 clinicians participated in telephone interviews regarding scar appearance and communication.
Results: Respondents expressed concern about their scars on both "visible" and "non-visible" body sites. Of respondents, 91% stated that they would value even a small improvement in their scarring. Curiously, while 75% of respondents indicated that they would "go to any length to minimize their scarring," a smaller proportion indicated that they would be willing to incur expense. Also, 71% believed they were more concerned than their surgeon about their scar.
Conclusions: Patients are highly concerned about scar appearance, irrespective of age, gender, ethnic background, or geographic location. The authors stressed that concerns extended across all body areas. They reminded us that patients perceive that the surgeon is less concerned regarding the scar and its impact.
Reviewer's Comments: This study is interesting, but may raise more questions about its design and implementation than it answers. The demographic selection process remains undefined. The authors concluded that concerns regarding scar appearance were equally distributed across gender, age, and other demographics. Those conclusions are not supported. Since study criteria excluded all patients who had no concern about their scars, it is neither surprising nor significant that all remaining respondents had concerns! In addition, the possible contradiction of patients who would "go to any length" for improvement but not incur expense raises questions about internal consistency. Of particular value to practicing surgeons, however, is the observation that the majority of patients felt that they were more concerned than their surgeon about the scar resulting from surgery. Clearly, surgeons should be concerned with all aspects of their patients' experience, and they should be perceived as concerned as well. (Reviewer-Norman V. Godfrey, MD).

Keywords: Scars, Appearance, Improvement

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Save Time and Money Using Dermal Stapler

The Absorbable Dermal Staple Device: A Faster, More Cost-Effective Method for Incisional Closure.

Cross KJ, Teo EH, et al:

Plast Reconstr Surg 2009; 124 (July): 156-162

The dermal stapling device saves time and money to create scars similar to those created with traditional suturing techniques.

Background: Wound edge apposition and soft tissue eversion are key elements to ensuring tension-free wound closure. Traditionally, plastic surgeons place multiple dermal sutures to appose wound edges, but repeated sutures can cause additional trauma to tissues.
Objective: To examine use of a dermal stapler, which deploys U-shaped absorbable staples into the dermal layer, with regard to faster operative times and cost-effectiveness. The authors also assess histology and patient satisfaction.
Design: Prospective, randomized controlled study.
Participants/Methods: 11 patients were enrolled. Each underwent bilateral breast reconstruction with tissue expanders. One incision was randomized to dermal closure with the absorbable dermal stapler, while the contralateral incision was closed with dermal sutures. Wounds were assessed by a blinded plastic surgeon using a previously tested scar scoring system. Several data points were collected intraoperatively including incision length, number of staples and sutures (total and per centimeter), and time for wound closure (total and per centimeter). Wounds were later excised at the time of tissue expander exchange for permanent implant. These scars were sent for histologic analysis.
Results: There was no statistically significant difference between incisions closed with regard to number of staples or sutures. Incisions were closed faster with use of the dermal stapler. This was a statistically significant difference compared to dermal suturing. Based on the scar scale, wound height (tissue eversion) was significantly greater in the dermal stapler group at 22 days postoperatively but not at 136 days postoperatively. Significant cost savings were also noted at $227 per case or >$16/cm of incision. No wound complications were noted. Histologic analysis noted no significant differences between specimens.
Conclusions: The dermal stapling device provides cost-effective and faster incisional wound closure.
Reviewer's Comments: This prospective, randomized controlled study (admittedly with a modest number of enrolled patients) takes advantage of an ideal cohort to examine use of a new device. Bilateral breast reconstruction patients allow each study participant to act as her own control. Another unique aspect of this study population is the opportunity to study scars histologically as all patients return to the operating room for exchange of their tissue expanders for permanent implants. The data show that, with time, all scars appear to heal the same regardless of closure technique. The most interesting finding here is the potential cost savings to the hospital or surgical center and, in turn, to the patient. These savings can be even more important given the current economic state and decline in cosmetic surgery procedures. These devices can be very useful, especially for procedures with even longer incisions such as abdominoplasties, body lifts, and hernia repairs. (Reviewer-Robert T. Grant, MD).

Keywords: Wound Closure Techniques, Dermal Stapler, Cost-Effectiveness, Increased Productivity

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