

How to Soothe Mohs Surgeons' Ergonomic Woes

BY MIRIAM E. TUCKER
Senior Writer

OUR LUCAYA, BAHAMAS — Performing Mohs surgery or other close, long-duration procedures may cause repetitive strain injuries, Dr. Henry W. Randle said at the annual meeting of the American Society for Mohs Surgery.

Mohs surgeons are at particular risk for injuries resulting from prolonged work that involves repetitive movements and

awkward body positions. "Even young surgeons are at risk. Early intervention is important," said Dr. Randle of the Mayo Clinic, Jacksonville, Fla., whose interest in the topic stemmed from his own experience with neck pain after years of performing Mohs surgery.

A survey of 17 Mohs surgeons from three Mayo Clinic sites (Florida, Minnesota, and Arizona) revealed surprising results: 16 reported symptoms of repetitive strain injuries. Of those, 12 said the symptoms

started while they were performing Mohs surgery, while 4 reported preexisting conditions that worsened during the procedure. "This was really quite striking. I thought we'd find three or four," he said.

The group comprised 12 men and 5 women, with a mean age of 39.5 years. They had an average of 7 years' experience with Mohs surgery, spending approximately 24 hours per week performing the procedure. The majority (14) operated primarily while standing.

Among the 12 who reported symptoms that began while practicing Mohs, the average age of onset was 35.4 years after a mean of just 2.5 years in practice. "This was much earlier than I thought ... It happens very early in your career," he said.

Neck pain was the most common complaint, affecting 10 of the 17 respondents. Shoulder pain was reported by 9, low back pain by 7, eye fatigue/burning by 5, headaches, by 4, and leg edema by 3. Low back pain was more common among the surgeons who typically worked while standing, while neck pain was more common among those who were usually seated while doing Mohs.

But on the bright side, there are ways of minimizing these problems. After analyzing videotapes of six study participants, an expert in occupational medicine and ergonomics made the following recommendations to alleviate the various symptoms:

► **Neck pain.** Often a result of too much distance between the surgeon and the patient, neck pain can be exacerbated by bulky operating tables that require the surgeon to bend over too far. Less bulky operating tables, such as dental chairs, can allow for closer access to the patient. Odd angles of the neck can also lead to pain. Repositioning yourself in front of the patient and taking frequent breaks to stretch can provide relief.

► **Shoulder pain.** Reaching over the patient is a common cause. Sometimes with older patients who can't move themselves very easily, surgeons will tend to adjust themselves around the patient. But it's better to move the patient (or have the nurse do it) than to strain. A chair that provides sternal support allows the surgeon to rest his or her elbows while leaning forward over the patient, thereby easing tension in the neck, Dr. Randle explained.

► **Low back pain.** Surgeons with low back pain who stand for Mohs surgery might try sitting. Chairs with sternal support can also help alleviate low back pain. For those who still want to stand, "sit stands" allow the surgeon to take short breaks and lean back during the procedure.

► **Eye fatigue and headaches.** Bright lights and glare contribute to both problems. Lowering the lighting in the room and using black instruments may help.

► **Leg edema.** Inactive posture is the culprit here, but the problem can be alleviated by moving around and taking frequent breaks. Sitting, foot rests/rails, and compression stockings may also help. Floor mats with surface variations have been installed in the operating rooms at Mayo to help alleviate foot pressure. Gel-containing shoe inserts available over the counter at drugstores can accomplish the same thing.

During the question and answer period, audience member and fellow conference speaker Dr. Daniel Buchen, who is in private practice in New Jersey and Staten Island, N.Y., told the audience that he is a loyal follower of—but has no financial ties to—a program called PowerPosture (www.powerposture.com), which has greatly reduced the neck and upper back pain he had been experiencing while performing Mohs surgery. "I do it every day. It has changed my life," Dr. Buchen said. ■

BRIEF SUMMARY OF PRESCRIBING INFORMATION

Duac® Topical Gel (clindamycin, 1% - benzoyl peroxide, 5%)

For Dermatological Use Only.
Not for Ophthalmic Use.

Rx Only

INDICATIONS AND USAGE

Duac Topical Gel is indicated for the topical treatment of inflammatory acne vulgaris.

Duac Topical Gel has not been demonstrated to have any additional benefit when compared to benzoyl peroxide alone in the same vehicle when used for the treatment of non-inflammatory acne.

CONTRAINDICATIONS

Duac Topical Gel is contraindicated in those individuals who have shown hypersensitivity to any of its components or to lincomycin. It is also contraindicated in those having a history of regional enteritis, ulcerative colitis, pseudomembranous colitis, or antibiotic-associated colitis.

WARNINGS

ORALLY AND PARENTERALLY ADMINISTERED CLINDAMYCIN HAS BEEN ASSOCIATED WITH SEVERE COLITIS WHICH MAY RESULT IN PATIENT DEATH. USE OF THE TOPICAL FORMULATION OF CLINDAMYCIN RESULTS IN ABSORPTION OF THE ANTIBIOTIC FROM THE SKIN SURFACE. DIARRHEA, BLOODY DIARRHEA, AND COLITIS (INCLUDING PSEUDOMEMBRANOUS COLITIS) HAVE BEEN REPORTED WITH THE USE OF TOPICAL AND SYSTEMIC CLINDAMYCIN. STUDIES INDICATE A TOXIN(S) PRODUCED BY CLOSTRIDIA IS ONE PRIMARY CAUSE OF ANTIBIOTIC-ASSOCIATED COLITIS. THE COLITIS IS USUALLY CHARACTERIZED BY SEVERE PERSISTENT DIARRHEA AND SEVERE ABDOMINAL CRAMPS AND MAY BE ASSOCIATED WITH THE PASSAGE OF BLOOD AND MUCUS. ENDOSCOPIC EXAMINATION MAY REVEAL PSEUDOMEMBRANOUS COLITIS. STOOL CULTURE FOR *Clostridium difficile* AND STOOL ASSAY FOR *Clostridium difficile* TOXIN MAY BE HELPFUL DIAGNOSTICALLY. WHEN SIGNIFICANT DIARRHEA OCCURS, THE DRUG SHOULD BE DISCONTINUED. LARGE BOWEL ENDOSCOPY SHOULD BE CONSIDERED TO ESTABLISH A DEFINITIVE DIAGNOSIS IN CASES OF SEVERE DIARRHEA. ANTIPERISTALTIC AGENTS SUCH AS OPIATES AND DIPHENOXYLATE WITH ATROPINE MAY PROLONG AND/OR WORSEN THE CONDITION. DIARRHEA, COLITIS AND PSEUDOMEMBRANOUS COLITIS HAVE BEEN OBSERVED TO BEGIN UP TO SEVERAL WEEKS FOLLOWING CESSATION OF ORAL AND PARENTERAL THERAPY WITH CLINDAMYCIN.

Mild cases of pseudomembranous colitis usually respond to drug discontinuation alone. In moderate to severe cases, consideration should be given to management with fluids and electrolytes, protein supplementation and treatment with an antibacterial drug clinically effective against *Clostridium difficile* colitis.

PRECAUTIONS

General: For dermatological use only; not for ophthalmic use. Concomitant topical acne therapy should be used with caution because a possible cumulative irritancy effect may occur, especially with the use of peeling, desquamating, or abrasive agents.

The use of antibiotic agents may be associated with the overgrowth of nonsusceptible organisms, including fungi. If this occurs, discontinue use of this medication and take appropriate measures.

Avoid contact with eyes and mucous membranes.

Clindamycin and erythromycin containing products should not be used in combination. *In vitro* studies have shown antagonism between these two antimicrobials. The clinical significance of this *in vitro* antagonism is not known.

Information for Patients: Patients using Duac Topical Gel should receive the following information and instructions:

- Duac Topical Gel is to be used as directed by the physician. It is for external use only. Avoid contact with eyes, and inside the nose, mouth, and all mucous membranes, as this product may be irritating.
- This medication should not be used for any disorder other than that for which it was prescribed.
- Patients should not use any other topical acne preparation unless otherwise directed by their physician.
- Patients should report any signs of local adverse reactions to their physician.
- Duac Topical Gel may bleach hair or colored fabric.
- Duac Topical Gel can be stored at room temperature up to 25°C (77°F) for up to 2 months. Do not freeze. Keep tube tightly closed. Keep out of the reach of small children. Discard any unused product after 2 months.
- Before applying Duac Topical Gel to affected areas, wash the skin gently, rinse with warm water, and pat dry.
- Excessive or prolonged exposure to sunlight should be limited. To minimize exposure to sunlight, a hat or other clothing should be worn.

Carcinogenesis, Mutagenesis, Impairment of Fertility: Benzoyl peroxide has been shown to be a tumor promoter and progression agent in a number of animal studies. The clinical significance of this is unknown.

Benzoyl peroxide in acetone at doses of 5 and 10 mg administered twice per week induced squamous cell skin tumors in transgenic TgAC mice in a study using 20 weeks of topical treatment.

Genotoxicity studies were not conducted with Duac Topical Gel. Clindamycin phosphate was not genotoxic in *Salmonella typhimurium* or in a rat micronucleus test. Benzoyl peroxide has been found to cause DNA strand breaks in a variety of mammalian cell types, to be mutagenic in *Salmonella typhimurium* tests by some but not all investigators, and to cause sister chromatid exchanges in Chinese hamster ovary cells. Studies have not been performed with Duac Topical Gel or benzoyl peroxide to evaluate the effect on fertility. Fertility studies in rats treated orally with up to 300 mg/kg/day of clindamycin (approximately 120 times the amount of clindamycin in the highest recommended adult human dose of 2.5 g Duac Topical Gel, based on mg/m²) revealed no effects on fertility or mating ability.

Pregnancy: Teratogenic Effects: Pregnancy Category C: Animal reproduction studies have not been conducted with Duac Topical Gel or benzoyl peroxide. It is also not known whether Duac Topical Gel can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Duac Topical Gel should be given to a pregnant woman only if clearly needed.

Developmental toxicity studies performed in rats and mice using oral doses of clindamycin up to 600 mg/kg/day (240 and 120 times the amount of clindamycin in the highest recommended adult human dose based on mg/m², respectively) or subcutaneous doses of clindamycin up to 250 mg/kg/day (100 and 50 times the amount of clindamycin in the highest recommended adult human dose based on mg/m², respectively) revealed no evidence of teratogenicity.

Nursing Women: It is not known whether Duac Topical Gel is secreted into human milk after topical application. However, orally and parenterally administered clindamycin has been reported to appear in breast milk. Because of the potential for serious adverse reactions in nursing infants, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

Pediatric Use: Safety and effectiveness of this product in pediatric patients below the age of 12 have not been established.

ADVERSE REACTIONS

During clinical trials, all patients were graded for facial erythema, peeling, burning, and dryness on the following scale: 0 = absent, 1 = mild, 2 = moderate, and 3 = severe. The percentage of patients that had symptoms present before treatment (at baseline) and during treatment were as follows:

	Local reactions with use of Duac Topical Gel % of patients using Duac Topical Gel with symptom present Combined results from 5 studies (n = 397)					
	Before Treatment (Baseline)			During Treatment		
	Mild	Moderate	Severe	Mild	Moderate	Severe
Erythema	28%	3%	0	26%	5%	0
Peeling	6%	<1%	0	17%	2%	0
Burning	3%	<1%	0	5%	<1%	0
Dryness	6%	<1%	0	15%	1%	0

(Percentages derived by # subjects with symptom score/# enrolled Duac subjects, n = 397).

HOW SUPPLIED

Duac® (clindamycin, 1% - benzoyl peroxide, 5%) Topical Gel is available in a 45 gram tube - NDC 0145-2371-05.

Prior to Dispensing: Store in a cold place, preferably in a refrigerator, between 2°C and 8°C (36°F and 46°F). Do not freeze.

Dispensing Instructions for the Pharmacist: Dispense Duac Topical Gel with a 60 day expiration date and specify "Store at room temperature up to 25°C (77°F). Do not freeze."

Keep tube tightly closed. Keep out of the reach of small children.

U.S. Patent Nos. 5,466,446, 5,446,028, 5,767,098, and 6,013,637
Patent Pending



Stiefel Laboratories, Inc.
Coral Gables, FL 33134

833185 Rev. 0504

REFERENCES: 1. Lookingbill DP, Chalker DK, Lindholm JS, et al. Treatment of acne with a combination clindamycin/benzoyl peroxide gel compared with clindamycin gel, benzoyl peroxide gel and vehicle gel: combined results of two double-blind investigations. *Am Acad Derm.* 1997;37:590-595. 2. Tanghetti EA, Gold MH. A two-center patient preference study comparing two benzoyl peroxide/clindamycin gels in acne vulgaris patients. Presented at: 63rd Annual Meeting of the American Academy of Dermatology; February 18-22, 2005; New Orleans, LA. Poster 108. 3. Tanghetti EA, Abramovits W, Solomon B, et al. Tazarotene versus tazarotene plus clindamycin/benzoyl peroxide in the treatment of acne vulgaris: a multicenter, double-blind, randomized parallel group trial. Presented at: 63rd Annual Meeting of the American Academy of Dermatology; February 18-22, 2005; New Orleans, LA. Poster 147.

Duac is a registered trademark of Stiefel Laboratories, Inc. Your Choice is Clear, Make the Clear Choice, and Research in Dermatology are trademarks of Stiefel Laboratories, Inc.