

**REPORT TO
PHYSICIANS**

**NOV/DEC 1998
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THE UNIVERSITY OF TEXAS
**MD ANDERSON
CANCER CENTER**
Making Cancer History™

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Annual index guides OncoLog readers through the year's cancer topics.

MD Anderson OncoLog

Mohs Surgeon Expands Skin Cancer Treatment Options

by Jude Richard

With a Polaroid, scalpel, and microscope, Brooke Jackson, M.D., the new director of Mohs surgery in the Department of Medical Specialties, is changing the way patients at The University of Texas M. D. Anderson Cancer Center are treated for basal cell carcinomas (BCCs) and early squamous cell carcinomas.

"In the past," she explains, "dermatologists or doctors referring their patients with basal or squamous cell carcinoma to M. D. Anderson would find no Mohs surgeon on staff." That changed in October when Dr. Jackson performed the first Mohs micrographic outpatient surgery at M. D. Anderson. She is one of only five Mohs micrographic surgeons in Houston and one of about 200 nationwide.

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Surgeon initiates treatment with measurement.

Mohs surgeon **Dr. Brooke Jackson** measures diameter of left upper quadrant lesion visible on the chest of patient Charles "Jiggy" Adams.



Mohs Surgeon

(Continued from page 1)



Excision proceeds in specific pattern to spare tumor-free tissue.

Dr. Jackson divides the lesion into five sections, a center hub and an outer circle divided into four curved bars surrounding it, and lifts out each section onto sterile gauze. Because Mohs surgery requires only local anesthetic, the patient is awake during the procedure.



Technician obtains photographic record of specimens and site.

Mohs micrographic surgery is named for Dr. Frederick Mohs, who in the late 1940s discovered that skin cancers treated with a zinc chloride paste could be easily removed the next day, sectioned, and examined for tumor-free margins.

“The only problem with this fixed-tissue technique,” says Dr. Jackson, “was that if more tumor was found, more paste would have to be put on and the patient would have to return the next day and sometimes day after day.”

In 1953, Dr. Mohs luckily discovered that lesions could be removed using only local anesthesia and forgoing in situ tissue fixation without compromising the pathological findings. This fresh-tissue technique is used by most Mohs surgeons today.

“Mohs micrographic surgery is a tissue-sparing, time-saving, and cost-efficient outpatient procedure,” says Dr. Jackson, “but it hasn’t been done here until now.”

Madeleine Duvic, M.D., chief of the Section of Dermatology,

explained, “The new Mohs service leaves busy services such as Melanoma and Head and Neck Surgery free to concentrate on treating more extensive skin cancers.” Dr. Duvic, who spearheaded the drive to bring Mohs surgery to M. D. Anderson, says it allows the cancer center to “cost-effectively and expediently take care of patients with the most common cancer in humans—skin cancer—in ways that result in the highest level of cure.” She said the technique is best suited for treatment of recurrent BCCs, BCCs that are in areas of high risk for recurrence (nose, eyes, forehead, around ears), and for lesions with indistinct margins or sclerosis in which excision may miss tumor margins.

“More and more patients are becoming aware of Mohs surgery,” Dr. Jackson said, “because their dermatologists are aware of it and tell them about it. Dermatologists and primary care physicians are often the first to diagnose skin cancers in their patients. But

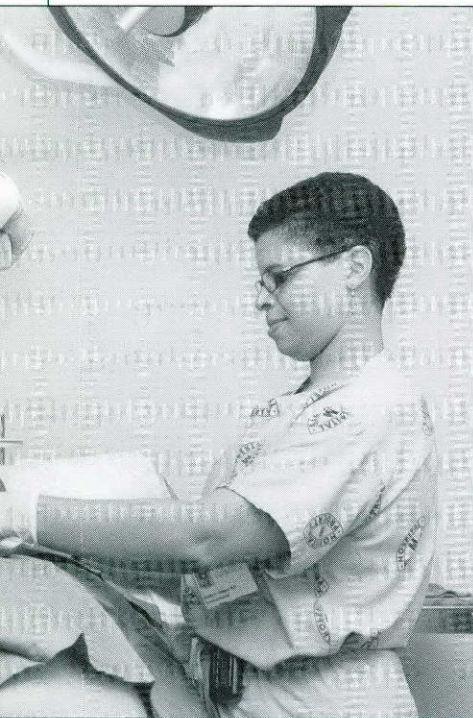
most of the patients I’ve seen here so far have been coming for other reasons, say, for prostate or breast or some other cancer, and because they’re already in the system, they’re being diagnosed with and treated for skin cancers.”

This was the case recently with 58-year-old Charles “Jiggy” Adams of Orange.

“I was seeing Dr. Jaffer Ajani for colon cancer,” Adams recounted recently, “and I mentioned this spot on my chest. He referred me to Dr. Jackson, who did a biopsy and found a skin cancer that needed to be removed.”

By definition, the Mohs surgeon is both surgeon and pathologist. “Since half of the dermatology training for Mohs surgeons is in pathology, we are prepared not only to examine skin tumors in situ but also to evaluate them under the microscope. This leads to cost and time savings since one person is doing the job of two,” explains Dr. Jackson.

Dr. Jackson’s recent removal of a half-dollar-size skin cancer from



Research histological technician Annette Basey uses a Polaroid to record the position of tissue samples on gauze next to chest site. Dr. Jackson's nurse, Tamme Ford, is in left background.



Dyes color-code excised tissue and map it to site.

Basey marks tissue samples and photograph with corresponding dyes before pathological examination.

Adams's chest provided a glimpse of her approach to Mohs surgery. As for all patients, Dr. Jackson had advised Adams ahead of time to have a good breakfast, take all his medicine, wear comfortable clothing, and bring books or magazines and a snack. She also advised him to have a relative or friend accompany him on the day of surgery.

"Because Mohs surgery is done with the patient under local anesthesia, the patient can pretty much follow a normal routine even on the day of surgery. We also tell patients they can plan to stay here two or three hours," Dr. Jackson explains.

Except for using a camera that produces instant prints instead of making a drawing of the lesion site, Dr. Jackson's approach is traditional. In Adams's case, the first step was to circle the area of skin containing the lesion with a felt tip pen and then photograph it. Then, the lesion was numbed with a local anesthetic, excised with a scalpel, and cut into five pieces, an inner circle and a

quartered outer ring. Afterward, another photograph was taken with the excised lesion lying next to the surgical defect; this photo was then color coded to ensure proper orientation of each specimen to the site.

Next, the pieces were handed off to the histological technician, who marked their edges with dyes matched to the photograph for tracking, froze them, and then horizontally sectioned them from the bottom up. Sections were then mounted on slides and stained with toluidine blue.

"Once I've handed off the tissue for processing," Dr. Jackson adds, "the patient can be up and walking around, chatting with friends or family. Sometimes, if a patient's interested, I'll even invite him to get off the table to take a look at the tumor under the microscope. Compare that with taking the patient to the O.R., putting him to sleep, bringing him out of anesthesia, dealing with the subsequent grogginess."

Once Adams's slides were ready, Dr. Jackson pored over them through a microscope. She noted several cancerous areas, marked them on her Polaroid map of the original lesion, and returned to Adams. She numbered the sites, excised more tissue, and repeated the processing and microscopic examination of slides. This she did until the margins were tumor free. Finally, she repaired the surgical defect with a linear closure. She repairs most of the defects, but if one requires the skills of a plastic surgeon, Dr. Jackson schedules the required procedure.

"One great advantage of Mohs surgery, beyond the obvious cost savings, tissue sparing, and time savings," said Dr. Jackson, "is that it actually allows the doctor two hours to chat with the patient. And there are very few doctor-patient visits these days that can last that long." ●

FOR MORE INFORMATION, contact Dr. Jackson at (713) 745-1113.

Colorectal Cancer Campaign Launched at White House

by Alison Ruffin

“We’re here quite simply to save lives.”

With those words Hillary Rodham Clinton launched a national colorectal cancer awareness campaign last September in the White House East Room, where Bernard Levin, M.D., unveiled new public service announcements, featuring the First Lady, and promoted colorectal cancer screening for and early detection of colorectal cancer.

“The real tragedy of 50,000 deaths a year from this disease,” Dr. Levin told a crowd of about 180 federal legislators, physicians, colorectal cancer survivors, and media representatives, “is that so many of them can be prevented.”

Dr. Levin, a gastroenterologist and head of the Division of Cancer Prevention at The University of Texas M. D. Anderson Cancer Center, chairs the National Colorectal Cancer Roundtable of the American Cancer Society (ACS) and cochairs the Digestive Health Initiative’s Colorectal Cancer Campaign of the American Digestive Health Foundation. Both organizations were sponsors of the event.

The second leading cause of cancer death, colorectal cancer claims 56,500 lives in the United States annually, according to ACS. Early detection and treatment can reverse the statistics, according to Levin, who said early intervention made colon cancer 95% curable.

Helping make screening more accessible was the approval of Medicare coverage for colorectal cancer screening, which went into effect Jan. 1, 1998. As part of his efforts to educate the public and policy makers, Dr. Levin testified two years ago before the U.S. Congress on behalf of the American Gastrointestinal Association in hearings concerning the coverage.

Dr. Levin told the White House gathering that colorectal cancer screening and early detection could reduce the death rate from the disease by 50%.

NBC *Today Show* cohost Katie Couric whose 42-year-old husband recently died of colorectal cancer also spoke. “I’m mad as hell that the first-line chemotherapy for this disease has been around since the 1950s,” Couric told the audience, referring to colon cancer treatment’s limited advances compared with those seen in breast cancer and the leukemias. She hosted a week-long series on the *Today Show* about colorectal cancer, which included interviews with Dr. Levin.

Clinton encouraged those at the event to contact their congressional representatives to urge passage of the largest funding ever awarded for cancer research.

“The real hard work depends on physicians and researchers. We are at a breakthrough point of learning so much more about cancer. We need to find new ways to help scientists determine who is at risk,” Clinton said.

Health and Human Services Secretary Donna Shalala and actress and colorectal cancer survivor Barbara Barrie also appeared at the

White House, where the silence surrounding colorectal cancer was denounced.

“Up until last year, this was a taboo subject,” said Barrie, whose book, *Second Act*, chronicles her cancer

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Dr. Bernard Levin, vice president for cancer prevention at The University of Texas M. D. Anderson Cancer Center, speaks at the White House about the importance of colorectal cancer screening and early detection at the launch of the government’s colorectal cancer campaign kickoff. At left is the First Lady.





Reduce Colorectal Cancer Risk: Modify Diet, Undergo Screening

Colorectal cancer (cancer of the colon or rectum) is one of the most common cancers in the United States. While the disease is most likely to occur in people over the age of 50, a person of any age can be affected. It is important for everyone to know what can be done to reduce the risk of this disease and to detect it early when it is most treatable.

Colorectal cancer begins in either the colon or the rectum. These parts of the body's digestive system absorb nutrients from foods eaten and store waste until it passes out of the body.

Cancer Causes

The exact causes of colorectal cancer are not known, but certain risk factors have been shown to increase a person's chance of getting the disease. These include age (90 percent of people with this cancer are over 50 years old), a family history (in parents, siblings, or children) of colorectal cancer, and a diet high in fat and low in fiber. Having had certain diseases—ulcerative colitis or ovarian, uterine, or breast cancer—also increases the risk of colorectal cancer. People who have had colorectal cancer sometimes have it a second time.

Reducing Risk

While some of these factors cannot be controlled, such as age or family history, there are many things you can do to decrease risk of colorectal cancer:

- Eat foods high in fiber and low in fat.
- Decrease alcohol consumption.
- Exercise. Even minimal exercise on a regular basis can help.
- Ask your doctor about taking low doses of aspirin. Peri- and post-menopausal women should also

consult their doctors about hormone replacement therapy. Recent studies have suggested both reduce colorectal cancer risk.

- Undergo regular screening. Screening tests can uncover precancerous polyps, which are benign growths on the inner wall of the colon or rectum. Since most colorectal cancers develop in polyps, removing these growths helps reduce the risk of cancer. Screening also can detect cancer at an early stage, when it is most curable.

Screening

M. D. Anderson and the American Cancer Society recommend that beginning at age 50, people have one of the following:

- a yearly fecal occult blood test in which a sample of stool is examined for blood plus flexible sigmoidoscopy (an examination of the rectum and lower colon with a slender, lighted instrument) every five years, *or*
- a colonoscopy (an examination of the rectum and entire colon with a lighted instrument) every 10 years, *or*
- X-ray studies following a double-contrast barium enema performed every 5 to 10 years.

A digital rectal examination, in which the doctor inserts a gloved finger into the patient's rectum to

SYMPTOMS

Symptoms of colorectal cancer include:

- Changes in bowel habits such as constipation, diarrhea, or narrowing of the stool that lasts for several days
- Bleeding from the rectum or blood in the stool
- Abdominal pain
- Unexplained weight loss
- Constant tiredness
- Vomiting

While these symptoms do not necessarily mean you have cancer, you should consult your doctor if any persists.

feel for abnormal areas, should be part of the testing when the sigmoidoscopy, colonoscopy, or X-rays are done.

Those who are at increased risk for colorectal cancer should start these screening procedures when they are younger than 50.

FURTHER INFORMATION about colon and rectal cancer can be obtained from the National Cancer Institute's Cancer Information Service at 1-800-4-CANCER.

For more information, contact your physician or contact the M. D. Anderson Information Line:

 (800) 392-1611 within the United States, or

 (713) 792-6161 outside the United States.

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Colorectal Cancer Campaign

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experience. "The time has come to talk about it," she said.

To reduce the risk of colorectal cancer, Dr. Levin makes the following four recommendations to pass along to patients concerning screening, diet, and chemoprevention.

1. Follow colorectal cancer screening recommendations.

Beginning at age 50, colorectal cancer screening and early detection recommendations for women and men include:

- annual fecal occult blood test plus flexible sigmoidoscopy every five years along with a digital rectal examination
- or colonoscopy every 10 years along with a digital rectal examination
- or double-contrast barium enema every five to 10 years along with a digital rectal examination.

2. Recognize that genetics, lifestyle, and diet play a role.

Scientists have identified several possible risk factors for colorectal cancer. These include heredity; sedentary lifestyle; cigarette smoking; a high-fat (especially high animal fat), low-fiber diet; and a diet low in fruit and vegetables.

Individuals at high risk are identified as having hereditary nonpolyposis colorectal cancer or familial adenomatous polyposis. Those with hereditary nonpolyposis are advised to begin colorectal cancer screening examinations at age 21; those with familial adenomatous polyposis should initiate screening at puberty. Individuals with adenomatous polyposis have a 100% chance of having colorectal cancer. People

with a history of ulcerative colitis or Crohn's disease also are considered to be at high risk of colorectal cancer.

Good nutrition really does matter. A diet rich in fruit and vegetables (a minimum of five servings daily) may prevent 30% to 35% of cancers, particularly colorectal cancer. Some vegetables may provide more benefit for preventing colorectal cancer. These include broccoli, cauliflower, and brussels sprouts, said Assistant Professor Steve Hursting, Ph.D., of

STATISTICS

Colorectal cancer statistics include the following:

- Colorectal cancer is the second leading cause of cancer deaths.
- Men and women are equally at risk for colorectal cancer. Over a lifetime, one in 17 men and one in 17 women will develop the disease.
- The 56,500 lives estimated to be lost to colorectal cancer in 1998 would account for 10 percent of the year's cancer deaths.
- Deaths from colorectal cancer are declining, decreasing over the past 15 years from 53 per 100,000 in 1985 to 44 per 100,000 in 1994, according to American Cancer Society figures.
- The National Cancer Institute estimates that 13 years of life are lost by the average patient who dies of colorectal cancer.

the Department of Epidemiology. These vegetables contain high levels of sulforaphanes, compounds that are very potent in inducing phase II detoxification enzymes, he said.

"These vegetables make toxins in the body more water soluble, thus making it easier to eliminate the toxins from the body," said Dr. Hursting. Broccoli sprouts, the young broccoli plants, contain especially high levels of sulforaphanes.

"Increasing the body's ability to rid itself of harmful substances is becoming an important cancer prevention strategy," said Dr. Levin in explanation.

3. Exercise for life.

Many studies have shown that regular exercise can help prevent colon cancer and also may protect against breast and lung cancers.

"To gain this cancer prevention benefit, we recommend regular exercise over a lifetime," said Dr. Levin. If occupational activity is low or moderate, take a brisk walk for an hour a day, and exercise vigorously at least one hour per week.

Physicians may want to recommend that daily exercise include one hour of any of these: brisk walking, biking, gardening, or playing baseball or volleyball. Thirty minutes of vigorous exercise, such as jogging, swimming, or stair climbing may replace the hour of other activity.

Meeting the vigorous exercise requirement is one hour of biking or cross-country skiing or one-half hour of such vigorous organized sports as basketball, soccer, hockey, rugby, or handball.

4. Keep up-to-date and follow chemoprevention recommendations as they emerge from research.

M. D. Anderson researchers are investigating chemoprevention for colorectal cancer. In several current studies, scientists are investigating how such compounds as aspirin, nonsteroidal anti-inflammatory agents (such as ibuprofen and acetaminophen), and calcium can help. ●

FOR MORE INFORMATION or to schedule an appointment for screening and early detection examinations for colorectal or other types of cancer, call the Cancer Prevention Center at (713) 745-8040 or (800) 438-6434.

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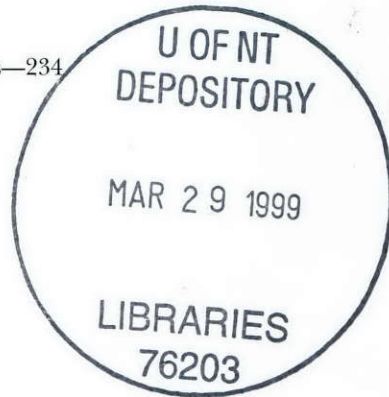
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