any clinicians are aware that skin cancers are more common in aging populations. In particular, basal cell carcinomas (BCCs) are of increasing concern in the elderly. Data indicate that incidence of BCCs ranges from three to four million new cases per year in older patients. Physicians need to be adept at identifying and managing these increasingly prevalent skin cancers.

Surgical Approaches
There are at least five different types of BCCs:
• Superficial, which can have an appearance similar to eczema;
• Nodular, which typically presents as a single pearly bump;
• Pigmented, which masquerades as a freckle;
• Morpheaform, which is nearly invisible and looks like a pink scar; and
• Micronodular, which has multiple presentations.

A number of clinical interventions exist for the treatment of these various types of BCCs, the most efficacious and reliable of which is surgery. The two primary approaches to surgical intervention are excision and Mohs surgery. Excision is the more invasive of the two as well as the more imprecise, starting with a wider margin, usually 4mm. While this can be effective for larger BCCs, excision does not allow you the opportunity to see the entire margin of the lesion under the microscope. Therefore, you will have a greater likelihood of receiving a pathology report indicating the need for re-excision.

Mohs surgery offers a better alternative to excision, especially in anatomically important areas, such as the face, ears, neck, hands, feet, and genitalia. Mohs surgery is minimally invasive, contrary to some popular perceptions. The main difference between Mohs surgery and excision is the starting point. Mohs starts with a 1 or 2mm margin. The goal is to remove the smallest portion possible. You can make a map of lesions using different color inks and have it processed within an hour. If you did not excise the whole lesion, you can easily determine how much still remains and do a second stage immediately. Therefore, not only is the scar typically much smaller, but you also have a roughly 99 to 100 percent success rate for removing the entire lesion.

While surgical intervention remains the most reliable approach for a vast majority of BCCs, some patients and families of patients have a fear of surgery and may wish to opt for other approaches. While patients and their families may be prone to have such misperceptions, it is the clinician’s job to ensure that elderly patients receive the most effective treatments available. That means educating patients and helping patients to understand the minimally invasive nature of Mohs surgery, even for those who may appear resistant to the notion of surgery. It does not matter whether an elderly patient is bed-ridden or still goes

Take-Home Tips. Data indicate that incidence of BCCs ranges from three to four million new cases per year in older patients. The most efficacious and reliable intervention is surgery. Mohs surgery is more precise and minimally invasive compared to excision. Patient education on Mohs is essential. Topical agents may be most useful as adjuncts to surgery. Intraoperative PDT and preventive cyclic therapies are emerging treatment options. Agents in the pipeline target Hedgehog signaling.
out once a week to dance; they deserve the benefits of Mohs surgery when it comes to the treatment of BCCs. Strategies for talking to patients about the benefits of Mohs surgery should include reminding them that the procedure is extremely well tolerated and received by a majority of patients regardless of age. You may also remind patients whom have ever had a biopsy that Mohs surgery is essentially the same experience. I also find it effective to compare the experience of Mohs surgery under local anesthesia and lidocaine to being at the dentist, as opposed to being in the Operating Room. Finally, these cancers rarely vanish with topical creams and only grow locally destructive and ulcerating—increasing discomfort and risk of infections.

Topical Interventions and Other Developments
While surgery remains the primary treatment modality for most BCCs, other modalities may be effective either in conjunction with or instead of surgery. Topical interventions such as imiquimod (Zyclara, Graceway), fluorouracil (Efudex, Valeant), and diclofenac sodium (Solaraze, PharmaDerm) all have been associated with modest success individually but are much more effective as adjuncts. Topical agents may also have other practical uses. For example, suppose a patient has a superficial BCC that spreads on top of the skin like an oil slick. There might be several smaller, incontiguous patches farther from the main lesions. I might happen to cut between two patches and thus will have a false clear margin on pathology. If I suspect this, I will use adjuvant topical treatments in the area. Topical agents are beneficial if you are concerned about secondary, smaller lesions for two reasons. First, they have modest efficacy. Second, they are immunostimulators, and so if there is an area of the skin you are uncertain about, these agents will essentially “light up” areas as a red spot. These agents, then, can serve as detectors for other areas to treat.

A technique I have developed that may provide added benefit is intraoperative photodynamic therapy (PDT), with Levulan (DUSA). In this method PDT is performed after the first stage of Mohs surgery, when there is an open wound. With the Levulan device, you can essentially drench the whole area with ALA-blue light, bringing added benefit to the treated area while also providing preventive treatment for the areas around the treated lesions. This can be especially beneficial for patients with extreme sun damage when there is concern for more skin cancers. The ALA and blue light penetrate under the skin, functioning almost like a kind of chemotherapy to the entire area.

Apart from these approaches, we can never underestimate the importance of preventive care in the general treatment of skin cancer, even in elderly patients. While sun protection and avoidance are to be advised in all patients, older and elderly patients (particularly the “frequent flyers”) would likely benefit greatly from preventive treatment two to three times per year. Patients can be on cyclic treatment with PDT and/or topical agents mentioned above.

On the Horizon
The range of topical and surgical approaches constitute a sound treatment paradigm for the different types of basal cell carcinomas, but potentially exciting developments in the pipeline may aid in the strengthening of treatment regimens as well as advancing our understanding of skin cancer. Perhaps the most visible and promising of these pipeline projects is vismodegib (GDC-0449, Genentech), an investigational, oral medicine designed to selectively inhibit signaling in the Hedgehog pathway, which is implicated in more than 90 percent of BCC cases. Inhibiting the pathway and ceasing the proliferation of basal cells, enables the body to fight it more easily. BCCs less than 3cm rarely metastasize. But when they are over 3cm in size they have up to a 10 percent chance of metastasizing, which in the past was rapid and incurable. Vismodegib is the first agent to address this pathway and represents the start of a whole new class of medications that will target different steps of the hedgehog pathway. It is an exciting development that may influence the future of skin cancer treatment and enable deeper understandings of BCC.

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