Approach to the Post Mohs Patient

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Abstract

This article discusses the often unique patient presentations and management challenges of the post Mohs resection surgical patient. This includes social, economic, and health issues. Anesthesia considerations and pre- and postoperative care are also discussed in this article.

Keywords

- Mohs surgery
- intravenous sedation
- transportation
- venture capital

A successful Mohs repair practice requires a high patient volume and necessitates delivery of fast and efficient patient care. The ideal facility to support a Mohs repair practice is easily accessible and cost-effective for the patient and has an anesthesia staff that is equipped to execute large numbers of cases and understand the special needs of these patients.[1] Additionally, a dedicated nursing staff that can facilitate rapid case turnover is essential.

To maximize efficiency, the practice should utilize eye stretchers to minimize transfer time in and out of the operating room. Not only can this save up to an hour of wasted time daily, it is also more comfortable for the patient and an operative bed is rarely indicated for a case.

The anesthetic of choice for the vast majority of Mohs repairs is simple intravenous (IV) sedation following a brief period of propofol sedation to allow injection of painful local anesthetic. A 50–50 mix of 1% lidocaine with epinephrine and 0.25% bupivicaine with epinephrine is used with the advantage that bupivicaine will provide up to 4 hours of postoperative anesthesia. In the majority of circumstances, the patient will not require additional oxygen and the nasal cannula is removed prior to surgical preparation. This substantially reduces risk of an intraoperative fire when electrocautery is used.

A chlorhexidine prep, specifically avoiding Betadine, is used to prepare the patient's entire head into the field with special attention paid to the ears and posterior scalp. The patient's head is then placed on a sterile drape. Four surgical towels are then used to frame the patients face and head with special care to avoid any tenting of the drapes around the patients' mouth or face.

Using a prepackaged surgical set is not only convenient but ultimately more cost-effective. Choice of instruments is surgeon's preference and these can be added to a standard plastic surgery set. Several things to note are that, due to the high volume and turnover of Mohs repair cases, instruments may become dull rather quickly with frequent steam sterilizations and use of dull instruments is unacceptable in delicate tissue handling. To work around the issue, have a sufficient number of sets of instruments and "peel packed" scissors to allow time for gas sterilization and/or have frequently scheduled maintenance for the instruments.

Although location and laterality of Mohs defects are rarely in question, taking a timeout should not be dismissed as unnecessary. Pausing the many moving parts to an operating room to confirm patient identity, allergies, and most importantly requirements for oxygen use is not only valuable to all team members, but it can also completely prevent easy mistakes and many potential operative complications. As mentioned earlier, many times a patient with IV sedation does not require oxygen and removal of the nasal cannula prior to surgery prevents associated risks with electrocautery. If the patient does indeed require oxygen, the risks can easily be avoided by removing the electrocautery tip while oxygen is turned on and maintaining communication with the anesthesiologist throughout the case when electrocautery is needed.

Postoperative pain management is paramount. First, use of bupivicaine does provide local anesthetic coverage for several hours following the surgery. Use of narcotic in the immediate postoperative period can be extremely beneficial and patients are often able to rapidly advance to non-narcotic pain management.

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Another unique aspect of Mohs repair is that the patient–physician relationship is often not established prior to the procedure and all interaction takes place on the day of surgery and during follow-up. It is, therefore, even more important to be diligent with the initial postoperative care to establish rapport and manage initial concerns, any complications, and need for revisions.

Sutures are removed within 4 to 6 days from the face to prevent subtle track marks, following which the patient is instructed to convert from use of antibiotic ointment to plain Vaseline. This prevents the inevitable reaction the patient will have to antibiotic ointment.

Postoperative restrictions are minimal. When a graft is in place, patients are instructed to avoid any lifting that requires Valsalva but are otherwise cleared for aerobic exercise, including walking, running, and stationary bicycle. Avoidance of usual exercise activities will only contribute to deconditioning, particularly in an older patient population, which is best avoided. The patient may shower, even with bolster dressing as long as they cover it with ointment and a shower cap to avoid soaking the dressing. If no bolster is in place, the patient may shower immediately postoperatively and are instructed to reapply ointment following their shower.

Patients are started on over-the-counter scar therapy and any patient prone to hypertrophic scarring is offered silicone gel and sheeting early on in the healing process. At their 6-week postoperative appointment, the scar is evaluated and, depending on appearance in color or contour irregularities, motorized dermabrasion in the office can be performed using only topical anesthetic.[2] A pulsed-dye laser is also used for pigmentary changes and if a scar has become hypertrophic, it is injected with intralesional steroids.[2]

The practice of soft tissue reconstruction after Mohs surgery can be the consummate action of a surgeon. The ability to restore normalcy to a disfigured patient is one of the greatest gifts a surgeon can offer. Treating these patients not only involves more than just surgical skill, which is essential, but also involves a gentle approach to often mostly elderly patients in terms of time and flexibility with regard to scheduling and operative care. Having a patient wait with an untreated wound for the surgeon's convenience is not appropriate from many standpoints. These patients require very careful preoperative evaluation prior to undertaking a repair procedure both to assess the patient's ability to undergo the procedure and to determine the patient's end point and expectations, as these can be quite different from those of the surgeon. It is clear that not every patient needs a multistage reconstruction to excellence; this should not become a crutch to offer substandard surgical care. The ideals of "one side matching the other side and normalcy" are excellent starting points and should only be downgraded after discussion with the patient and assessment of their physiologic status. As this patient population is frequently elderly and they require special consideration, including understanding current electronic modes of communication—particularly if some aspect of the Internet is lost on them—the practitioner should not mandate Internet use for pre- and postoperative instructions. Elderly patients often have difficulty with travel, particularly postoperative visits and frequently are able to drive during the day but not drive at night due to visual concerns. These factors must be considered for scheduling. Patient comprehension, although frequently voiced by the patient, is often not up to expectations and great care and diligence in preoperative discussion need to be practiced with these patients. As an example, in an informal survey, in 20 preoperative patients for forehead flap surgery, 30% did not realize there was an additional surgery required even after a thorough preoperative discussion with photographs was performed. The patients may have accessibility issues with regard to automobile parking as well as handicap access in the office and this needs to be considered. Finally, this patient population is frequently on blood thinners or on anticoagulation and the current consensus among Mohs surgeons is to not change their anticoagulation status prior to resection. However, the surgical requirements for repair often well exceed those of resection and this should be included in the preoperative planning. The preoperative planning needs to consider a multitude of options. The well-discussed ladder of reconstruction is appropriate as a framework for preoperative planning and the extent of the use of flow charts for algorithms should only be to serve as a framework for consideration of reconstructive options as these vary to every patient and careful patient and end point considerations need to be maintained.

Appropriate Patient Selection

Although the repair surgeon is often not directly involved in patient selection for Mohs surgeons, the repair surgeons can in no way absolve themselves from the responsibility to practice medicine appropriately. The "overuse" of Mohs surgery has been frequently discussed in the media (New York Times articles *Skin Cancers Rise, Along with Questionable Treatments* and *Patients' Costs Skyrocket; Specialists' Incomes Soar*), and although the guidelines for the appropriate use of Mohs surgery with regard to tumor cancer type, size, and location are very well defined and adhered to, the appropriate patient selection is at times lacking. The reasons for this are multifactorial and probably fall into one of four categories. The first reason may simply be after tumor excision, not understanding the degree of the repair complexity to restore this patient to normal. Often times the perceived end point between the Mohs surgeon, the plastic surgeon, and the patient is different and, in fact, a very involved multistage process will be required to restore normalcy. The second reason may well be not properly assessing the patient's ability to undergo not just the excision process that the majority of time can be performed in 1 day in an office setting, but the reconstruction process that may well be multistage stretching over weeks to months. The third reason is the lack of consideration for other options that may provide superior results for this patient. The fourth reason is the most disappointing, but there is no doubt in some private practice business-related models, external influences as described in the current New York Times

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articles cloud the decision-making process. With this in mind, the following adjuncts to patient selection seem appropriate:

1. Conflicting interest between venture capital and clinical practice is irreconcilable and should be avoided.
2. Treat every older patient as an elderly family member.
3. Simple description of the procedure is not adequate. Discussion with photographic review is followed up by questions directed at the patient to ensure comprehension, both at the resection and the repair procedure.
4. Ensure that appropriate resources are available, not just for the excision but also for the repair. This includes a support group and the financial ability to meet both the repair and the transportation and postoperative requirements.
5. Always consider nonsurgical options.
6. Always consider that doing nothing may be a better option.
7. Every patient deserves access to postoperative skin cancer screening and prevention after Mohs excision.
8. Contingency plans for the inability to resect to completion need to be discussed prior to undergoing the excision.
9. Hospice patients or patients with profound dementia likely do not need skin cancer resection.

References

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