Plastic Surgery (Elective)

Length: 4 weeks of PGY-4 year
Location: The Queen's Medical Center
Primary Supervisor: F. Don Parsa, M.D.
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During general surgery training, Residents are provided an opportunity to investigate the field of plastic surgery and to glean from it principles which will assist them as general surgeons in practice, especially if they will be exposed to trauma. During this one-month rotation, the Resident will have the opportunity to evaluate, pre- and postoperatively, patients who are eligible for or who have undergone plastic surgical procedures. Residents will also gain competence in the use of microsurgical techniques and instruments.

Goals

Upon completion of the Plastic Surgery rotation, the Resident will be able to:

1. Demonstrate knowledge of the nature and principles of correction and reconstruction of congenital and acquired defects of the head, neck, trunk, and extremities.
2. Manage the treatment of acute, chronic, and neoplastic defects not requiring complex reconstruction.

Objectives

Medical Knowledge

1. Describe the process of normal wound healing, including levels of wound contamination and management principles, factors inhibiting the normal healing process, and various wound dressings.
2. Demonstrate an understanding of the pathophysiology of thermal, chemical, and electrical burns, and describe the initial management for each type.
3. Acquire an understanding of resuscitation of a burned patient.
4. Demonstrate an understanding of the classification system for skin, head, and neck neoplasms.
5. Acquire an understanding of the various types and indications for flaps, including an understanding of the anatomy of commonly used flaps in plastic surgery.
6. Acquire an understanding of various suture materials and various suturing techniques.
7. Demonstrate an understanding of normal skin anatomy.
8. Review the methods for performing incisional and excisional biopsies of lesions of the oral cavity and skin in a manner appropriate to the specific lesion.
9. Describe the physiology of various techniques of skin transplantation and the circulation of skin, entailing the use of tissue transplantation (including skin grafts or local skin flaps) in the management of traumatic or excised wounds.

Patient Care
1. Outline the components necessary to develop a treatment plan, after completing a focused history and physical examination pertinent to the evaluation of congenital or acquired defects amenable to surgical correction or reconstruction, including a description of the appropriate diagnostic studies and any additional consultations needed to supplement the physical examination.

2. Review the surgical repair of superficial, incised, and lacerated wounds of the head, neck, trunk, and extremities.

3. Demonstrate knowledge of the systematic examination of the hand to assess motor and sensory function.

4. Demonstrate ability to assess the degree and extent of facial trauma.

5. Demonstrate proficiency with the components of a comprehensive examination of the mouth and the oral and nasal pharynx.

6. Demonstrate ability to appropriately harvest and apply skin grafts.

7. Contribute to the overall care of the plastic surgery patient including pre-operative evaluation, intra-operative intervention, and post-operative management.

8. Participate in the evaluation and formulation of treatment plans for (a) hand injuries, (b) facial fractures, and (c) head and neck cancer.

9. Act as a member of the surgical team, assisting or performing surgery as appropriate.

**Professionalism**

1. Interact with patients and their families in a respectful, sensitive, and ethical manner.

2. Interact with other Plastic Surgery Faculty members and ambulatory clinic personnel in a respectful, responsible, and professional manner.

**Systems-based Practice**

1. Understand the multidisciplinary role of the Plastic Surgeon, Trauma Surgeon, Subspecialty Physicians and Consultants, Trauma Nurse Coordinator, Nurses, Physician Assistants, Physical Therapists, Occupational Therapists, Speech Pathologists/Therapists, Rehabilitation Specialists, Social Services, and the Operating Room Team in the provision of safe, efficient, coordinated, and high quality reconstructive trauma care.

2. Demonstrate understanding of the importance of delivery of cost-effective health care (diagnostic evaluation, therapy) and the importance of coordination in rehabilitation and discharge planning for the trauma patient convalescing from a reconstructive procedure.

**Practice-based Learning and Improvement**

1. Demonstrate ability to utilize scientific studies to provide high quality plastic surgical reconstructive care.

2. Appropriately utilize Hospital information technology systems to manage patient care, and to access on-line medical information to deliver high quality care.

3. Facilitate and support the education of Medical Students, other Residents, and other healthcare team members.
Interpersonal and Communication Skills

1. Demonstrate skill in effective and sensitive information exchange with patients, their families, and other members of the Multidisciplinary Trauma Team for trauma patients requiring plastic surgery consultation or reconstructive procedures; and for patients undergoing elective procedures (both Clinic office based and in the Hospital).

2. Demonstrate ability for accurate and timely information exchange between other members of the healthcare team, both verbally and in writing, with appropriate use of the medical record.
Implementation

While on this rotation, the Resident will spend as much time as possible in the Faculty Attending's office evaluating patients for surgery and following patients who have previously undergone plastic and reconstructive surgical procedures. Residents will be asked to communicate their findings to the Attending for discussion and criticism. As soon as the Resident reports for this rotation, an office schedule will be worked out with the Faculty Attending so as not to miss any opportunities for this aspect of continuity of care.

The Resident will also be asked to fully assess and evaluate certain categories of patients, and to make detailed recommendations. Such cases would primarily deal with reconstructive aspects of plastic surgery, such as burns, various types of pathological scars, congenital and acquired deformities, and traumatic deformities. The Resident will act as first assistant on most of the operations; however, the Resident will act as the operating surgeon in basically all of the reconstructive procedures depending on their level of skill. Residents will also respond to emergency room calls during the day, and will evaluate the patients initially and discuss the findings and treatment plans with the Faculty Attending. In most instances, the Resident will act as primary surgeon for those patients admitted through the emergency room or treated in the emergency department.

Residents will also be required to spend on average one to three hours per week practicing microsurgical techniques. The Faculty Attending will teach microsurgical techniques. There is no on-call requirement for this elective.

Required Readings

Residents will be expected to maximize their learning opportunities by reading about anticipated and real conditions encountered during the rotation. These readings, which are deemed appropriate by the Faculty, will be the Resident's responsibility during the rotation. The suggested reference book for these readings is Grabb and Smith's *Plastic Surgery* (available in Dr. Parsa's office). The Resident will also be expected to supplement their textbook reading with current peer reviewed publications.

Performance Measures and Competency Assessment

1. Daily interactions with Plastic Surgery Faculty on in-patient wards, in the Clinic, and in the Operating Room, with Focused Review.
2. Global Evaluation at the end of the rotation.