

Plastic and Reconstructive Surgery

Introduction

Plastic surgical procedures fall into two major subdivisions: reconstructive and cosmetic. In our institution, reconstructive procedures are the main operations. In order to restore a natural appearance and to maintain postoperative function after ablative surgery, we use several methods consisted of microsurgical free tissue transfer, pedicled flap, local flap, skin graft, etc. Among these procedures, microsurgical transfer techniques are frequently used because of advantages such as reliable vascularity, less infection, better postoperative function and wider resection of advanced lesions. Therefore, applications are increasing in various areas of tissue defects and now more than a hundred microsurgical operations, including cases of in the National Cancer Center Hospital(NCCH) in Tsukiji, are performed per year.

Routine Activities

Three plastic surgeons cover reconstructive operations both in the NCCH East in Kashiwa and the NCCH in Tsukiji, and train the residents in the two hospitals. Every week three to four reconstructive operations are performed.

We opened a microsurgical laboratory for research and training programs in 1996.

Type of tissue defects are shown below in relation to several regions.

1) Head and Neck Regions

Tissue defects of tongue, oral cavity, mesopharynx, hypopharynx and cervical esophagus, mandibular bone, facial skin and facial nerve etc.

2) Orthopedic Regions

Tissue defects of extremities including bone, muscle, nerve, skin, vessels etc. and large tissue defects of the body.

3) Breast Regions

Deformity of breast tissue.

4) Hepatobiliary and Pancreatic Surgical Regions

Microvascular Reconstruction of the arterial system of the intra-abdominal organs.

5) Esophageal and Thoracic Surgical Regions

Tissue defects of esophagus and chest wall.

6) Colorectal Surgical Regions

Tissue defects of abdominal wall.

7) Dermatological Regions

Tissue defects after ablative surgery of skin cancer.

8) Neurosurgical Regions

Tissue defects of scalp, skull and skull base region.

9) Gynecological Regions

Reconstruction of perineal region.

10) Ophthalmological Region.

Eye-socket reconstruction.

11) Urological Region

Reconstruction of erectile function using free nerve graft.

New Developments

1. Reconstruction of the erectile function after resection of prostate cancer using sural nerve graft was continued.
2. Functional evaluation was performed in patients with mandible reconstruction using free fibular graft, mandible reconstruction plate, and soft tissue flap and comparative study was performed.
3. A concept of soft tissue reconstruction after segmental mandiblectomy was established for

compromised patients.

4. Reconstruction after salvage esophagectomy for recurrent tumors following the definitive

chemotherapy and radiotherapy was continued.

● M.Sakuraba ●

Primary Sites	
Primary Sites	No. of cases both in NCCHE and NCCH
Head and neck regions	
Tongue	39
Hypopharynx	45
Cervical esophagus	12
Mesopharynx	16
Oral floor	8
Gingiva	13
Buccal mucosa	7
Salivary glands	4
Maxillary sinus	7
Retromolar	4
Skull base	0
Others	31
Orthopedic regions	31
Breast regions	2
Hepatobiliary and pancreatic regions	2
Esophageal and thoracic regions	16
Colorectal regions	7
Urological regions	8
Dermatological regions	2
Neurosurgical regions	0
Gynecological regions	0
Thoracic regions	1
Total	255

Reconstructive Methods	
Reconstructive Methods	No. of cases both in NCCHE and NCCH
Rectus abdominis M.C.	56
Jejunal graft	58
Anterolateral thigh	29
Fibula bone	9
Radial forearm	2
Scapular bone	1
Latissimus dorsi M.C.	4
Iliac bone	1
Others	5
Other microsurgical procedures	27
Pedicled flap	
Pectoralis major M.C.	16
Latissimus dorsi M.C	6
Dertopectroal flap	2
Others	11
Local flap	14
Others procedures	14
Out patients surgery	4
Total	259
M.C., musculocutaneous.	