

# 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 (NCCCH) in Tsukiji, are performed per year.

## Routine Activities

Three plastic surgeons cover reconstructive operations both in the NCCCH East in Kashiwa and the NCCCH 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.

## New Developments

1. Prospective studies about the functional analysis after reconstruction of total or subtotal glossectomy were continued.

2. The new concept of palliative reconstruction to increase the quality of remained life has been introduced into some patients with unresectable tumor.

3. Reconstruction after salvage esophagectomy for recurrent tumors following the definitive chemotherapy and radiotherapy was continued.

4. Retrospective studies about the postoperative general and local complications after reconstruction for head and neck defects was started.

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Primary Sites	No. of cases both in NCCHE and NCCH
Head and neck regions	
Tongue	40
Hypopharynx	41
Cervical esophagus	10
Methopharynx	19
Oral floor	12
Gingival	18
Buccal mucosa	13
Salivary glands	2
Maxillary sinus	6
Retromolar	5
Skull base	0
Others	26
Orthopedic regions	20
Breast regions	1
Hepatobiliary and pancreatic regions	2
Esophageal and thoracic regions	10
Colorectal regions	5
Urological regions	1
Dermatological regions	7
Neurosurgical regions	0
Gynecological regions	1
Thoracic regions	3
<b>Total</b>	<b>242</b>

NCCH, National Cancer Center Hospital;  
NCCHE, National Cancer Center Hospital East.

Reconstructive Methods	No. of cases both in NCCHE and NCCH
Free flap	
Rectus abdominis M.C.	67
Jejunal graft	51
Anterolateral thigh	34
Fibula bone	17
Radial forearm	6
Scapular bone	1
Latissimus dorsi M.C.	4
Iliac bone	1
Others	12
Other microsurgical procedures	19
Pedicled flap	
Pectoralis major M.C.	10
Dertopectroal flap	14
Others	15
Local flap	10
Others procedures	26
Out patients surgery	15
<b>Total</b>	<b>302</b>

M.C., musculocutaneous.