VEER NARMAD SOUTH GUJARAT UNIVERSITY

University Campus, Udhna-Magdalla Road, SURAT – 395 007

BRANCH - III M.Ch. PLASTIC AND RECONSTRUCTIVE SURGERY

Scope

The qualification of M.Ch. in Plastic and Reconstructive Surgery should Signify adequate training and practical competence to undertake major plastic surgery with safety at the level of a prior specialist-consultant and as medical teachers. The term Plastic and Reconstructive Surgery is used in its wider sense, including all its such areas termed reconstructive surgery, craniofacial surgery, hand surgery, aesthetic surgery, micro vascular surgery and surgery for management of burns and their sequel.

a. **Written:**

Four papers each of three hours duration:

Paper – I: Applied Basic Sciences, principles and general techniques Including applications of anatomy to Plastic Surgery, Genetics physiology, Biophysics, Biochemistry, Pharmacology, Microbiology, Pathology, Anesthesiology, Radiotherapy, Orthodontics, Physiotherapy, Occupational Therapy, Speech therapy, Nursing, Historical aspects of plastic surgery, grafts and Flaps, wound healing, asepsis, dressing techniques, infection control, suture Materials, powered instruments, ventilatory support and causes of morbidity and Mortality.

Paper–II: Practice of plastic surgery in burns, head injuries, maxillofacial and craniofacial injuries, methods of providing skin cover for defects, replacing loss of other tissues, analysis and planning treatment of complex deformities, oral and skin cancers and general plastic surgery.

Paper–III: Operative surgery and special aspects of reconstruction, aesthetic Surgery, micro vascular, hand, cranio-maxillofacial surgery and endoscopic procedures.

Paper – IV: Recent Advances.

b. Clinical & Table Viva:

Long Case: In one hour, the candidate should make his/her clinical assessment, diagnosis and treatment plan. The examiners should lead the discussion to test the candidate's performance as a consultant faced with full responsibility for the patient's care.

Short Case: A selection of 4 short cases covering a wide range of plastic surgical problems should be given to the candidate.

Table Viva: This covers the candidates familiarity with pathological specimens, photographs, X-rays, appliances, dental models and instruments of relevance to plastic surgical work should be tested. Surgical anatomy, operative surgery and practical details of plastic surgical procedures, his/her work record, and final evaluation of his/her competence as a plastic surgeon.

METHODOLOGY OF THE CURRICULUM

Cognitive:

1. Seminars to review a subject.
2. Journal clubs to review relevant articles.
3. Tutorials with consultants and guest lectures.
4. Providing a well-stocked library.

Improving clinical judgement:

1. Comprehensive teaching ward rounds.
2. Treatment planning sessions.
3 Collaboration with allied specialists, orthodontist, speech therapist, radiotherapist, physiotherapist lectures to be arranged.
4. Surgical audit – monthly morbidity and mortality meeting.
5. Where a department is deficient in a sub-speciality Of Plastic Surgery, it is mandatory that the trainee spends 3 months in a department having the sub-speciality under supervision of the consultant.

Developing Skills:

1. Develop daily departmental program including emergencies.
2. Graduated increasing responsibility.
3. Familiarity with construction of simple splints for hand and burn injuries and dental models and appliances.
4. Experimental micro vascular Surgery training
5. Knowledge of information retrieval using computers.
6. Knowledge of clinical photograph / documentation.
7. Knowledge of clinical epidemiology.

Develop critical faculties:

1. Maintain records and analyse data.
2. Presentations at clinical meetings, conferences.
3. Write scientific papers.
4. Thesis-research and investigate with limited objective clinical problems.
5. Ethical basis of practice of Plastic Surgery.

Syllabus for M.Ch. (Plastic and Re-constructive Surgery) Course

General Principles:-

1. History of Plastic Surgery and its broad scope at the present time.
2. Anatomy and functions of skin.
3. Split skin grafts and full thickness skin grafts, their take and subsequent behavior.
4. Local skin flaps.
5. Pedicled skin flaps and tubes.
6. Unstable scar and scar contracture.
7. Care of wounds, dressing, techniques and splints.
8. Wound healing.
9. Grafts – fat, fascia, tendon, nerve, cartilage, bone.
10. Infective skin gangrene.
11. Hospital infections.
12. Suture instruments.
13. Surgical instruments.
14. Implant materials used in Plastic Surgery.
15. Principles of genetics and general approach to the management of Congenital malformations.
16. Flaps – Fasciocutaneous, muscle, musculocutaneous, osteomyocutaneous.
17. Local anaesthesia, nerve blocks, regional anaesthesia.
18. Principles of anaesthesia for infants, adults, hypothermia, hypotensive anaesthesia.
19. Tissue expansion.
20. Keloid, hypertrophic scars.
21. Endoscopy in Plastic Surgery.

Face:-

1. Growth and development changes in face, anatomy of facial skeleton.
2. Structure and development of teeth.
3. Leprosy deformities of face.
4. Temporomandibular joint dysfunctions.
5. Fractures – nose, maxilla, mandible, zygoma, orbit – early management and treatment of sequel.
6. Corrective Rhinoplasty.
7. Reconstructive Rhinoplasty.
8. Facial paralysis.
9. Reconstruction of external ear.
10. Reconstruction of eyelids, ptosis.
11. Congenital deformities of face and jaw bone.

Cleft Lip and Palate and Craniofacial Anomalies:-

1. Embryology of head and neck (excluding central nervous system).
2. Regional anatomy of head and neck.
3. Embryogenesis of cleft lip and palate.
4. Cleft lip and palate, alveolar clefts.
5. Velopharyngeal incompetence.
6. Orthodontics, speech therapy in cleft lip and palate.
7. Principles of craniofacial surgery.
8. Rare craniofacial clefts, Tessier’s clefts.
9. Craniosynostosis, hypertelorism, craniofacial microsomia.

Tumours of Head and Neck and Skin:-

1. Vasoformative lesions of the skin and adenexa.
2. Jaw tumours.
3. Cancer of upper Aerodigestive stystem.
4. Reconstruction of mandible.
5. Reconstruction of maxilla.
6. Malignant and benign tumours of head and neck.
7. Tumour of skin.
8. Principles of prosthetic replacement of Jaw defects.

Trunk:-

1. Reconstruction of full thickness defects of the abdomen and thorax.
2. Decubitus ulcer.
3. Breast reconstruction.

Aesthetic Surgery:-

1. Chemical peeling and dermabrasion.
2. Blepharoplasty.
3. Face lift.
4. Abdominoplasty.
5. Body contouring, liposuction.
6. Reduction mammoplasty.
7. Augmentation mammoplasty.
8. Laser therapy.
9. Aesthetic Rhinoplasty.

Lower Extremity :-

1. Functional anatomy of foot.
2. Lymphedema.
3. Reconstructive surgery of lower extremity.
4. Leprosy deformities of leg and foot.

Genito Urinary :-

1. Embryology of the male and female external genitalia.
2. Anatomy of the male and female external genitalia.
3. Hypospadias.
4. Epispadias and ectopic vesicae.
5. Reconstruction of external genitalia.
6. Vaginoplasty.
7. Trans-sexualism (intersex).

Hand :-

1. Embryology of upper extremity.
2. Functional anatomy of hand.
3. Examination of hand.
4. General principles of hand surgery.
5. Treatment of acute hand injuries.
6. Finger tip injuries.
7. Flexor tendon injuries.
8. Extensor tendon injuries.
9. Principles of reconstruction in mutilating hand injuries.
10. Fractures of hand and dislocation of hand – metacarpal, phalanges.
11. Nail injuries, grafting.
12. Pollicisation.

13. Thumb reconstruction.
14. Peripheral nerve injuries, electrodiagnostic tests.
15. Brachial plexus injury.
16. Innervated flaps.
17. Vascular malformations of upper extremity.
18. Lymphedema in upper extremity.
19. Ischaemic conditions of upper extremity.
20. Vasospastic disorders of hands.
21. Nerve compression syndromes.
22. Surgery for spastic and tetraplegic hand.
23. Problems of small joints.
24. Dupuytren's disease.
25. Principles and treatment of old and neglected hand deformities.
26. Rheumatoid arthritis of hand.
27. Hand infections.
28. Congenital deformities of hand, finger, thumb.
29. Tendon transfers for radial, ulnar and median nerve injury.
30. Leprosy deformity of hand.
31. Benign and malignant tumours of hand.
32. Rehabilitation of hand, prosthesis.

Microvascular :-

1. Principles of microsurgery and its applications in plastic surgery.
2. Replantation and revascularisation surgery.
3. Microvascular tissue transfers.

Burns :-

1. Thermal burns.
2. Electrical burns.
3. Chemical burns.
4. Radiation burn.
5. Pathophysiology of burn shock.
6. Nutrition in burns.
7. Facial burns.
8. Tangenital excision and sequential excision.
9. Reconstruction of burn hand and upper extremity.
10. Post burn contractures – treatment of sequelae.
11. Burn wound infection, sepsis.
12. Principles of planning in event of burn disaster.
13. Organisation of Burns Unit.

PATTERN OF EXAMINATION :

Theory-4 Papers, 100 Marks each Duration: Three hours each

Paper – I	Applied Basic Sciences and General Principles in Plastic surgery.	100
Paper – II	Plastic Surgery Regional	100
Paper – III	Plastic Surgery Applied	100
Paper – IV	Plastic Surgery as applied to Allied Sciences and Recent Advances in Plastic Surgery.	100

DISTRIBUTION OF MARKS **

MCQ (Multiple Choice Questions) 20 questions (20x1)	20 Marks
One Essay	20 Marks
Two Essays 15 Marks each (15 x2)	30 Marks
Six short notes 5 Marks each (5 x6)	30 Marks
TOTAL	100 Marks

Practical/Clinical and Oral Examination

	No. OF CASES	DURATION	MARKS
LONG CASE	One	One Hour	100
SHORT CASE	Two	One Hour (30 Mts Each)	100
WARD ROUNDS	Four (Minimum)	One Hour	100
		TOTAL	300
Oral/ Viva Examination			100
		TOTAL	400

Note : Not more than three candidates will be examined in practical examination per day.

DISSERTATION: Approved/Not approved (No Marks)

MARKS QUALIFYING FOR A PASS

	Maximum Marks	Qualifying Marks for a pass (50%)
Theory	400	200
Clinical	300	150
Oral	100	50
Aggregate	800	400