August 2011

[KZ 067] **Sub. Code: 1904**

MASTER OF CHIRUGIAE (M.Ch.) DEGREE EXAMINATION

(SUPER SPECIALITIES)

BRANCH X – ENDOCRINE SURGERY

RECENT ADVANCES IN ENDOCRINE SURGERY AND INVESTIGATIONS FOR ENDOCRINE DISEAES

Q.P. Code:181904

Time : 3 hours (180 Min) **Maximum : 100 marks**

Answer ALL questions in the same order.

I. Elaborate on :	**Pages (Max.)**	**Time (Max.)**	**Marks (Max.)**
1. Pentavalent DMSA scan and FDG PET in the management of medullary carcinoma of thyroid.	11	35	15
2. I131 MIBG in the management of Adrenal Medullary Tumours.	11	35	15
II. Write notes on :			
1. Radio guided parathyroidectomy for parathyroid adenoma.	4	10	7
2. Role of Recombinant TSH in the management of differentiated thyroid cancer.	4	10	7
3. Advantages and disadvantages of Harmonic scalpel in Endocrine Surgery.	4	10	7
4. Indications and interpretation of NP59 iodocholesterol scan.	4	10	7
5. Role of prophylactic thyroidectomy in familial medullary carcinoma.	4	10	7
6. Robotic surgery for Endocrine Diseases.	4	10	7
7. Gene therapy in the management of thyroid cancer.	4	10	7
8. Trans nasal trans sphenoidal hypophysectomy for prolactinoma.	4	10	7
9. Indications and methodology of parathyroid autotransplantation.	4	10	7
10. VEGF in differentiated thyroid cancer.	4	10	7

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[LB 067] **AUGUST 2012** **Sub. Code: 1904**

M.Ch – ENDOCRINE SURGERY

Paper – IV RECENT ADVANCES IN ENDOCRINE SURGERY AND INVESTIGATIONS FOR ENDOCRINE DISEASES

Q.P. Code: 181904

Time : 3 hours **Maximum : 100 marks**

(180 Min)

Answer ALL questions in the same order.

I. Elaborate on :	**Pages (Max.)**	**Time (Max.)**	**Marks (Max.)**
1. Management of Regional Lymph Nodes in Papillary and Medullary Thyroid Cancer.	16	35	15
2. Open Right Anterior Adrenalectomy and Right Anterior Laparoscopic Adrenalectomy. Mention the advantages and disadvantages in each procedure.	16	35	15

II. Write notes on :

1. Sodium – iodide symporter (NIS) gene therapy for undifferentiated thyroid carcinoma.	4	10	7
2. Role of Touch Imprint Cytology in the management of a thyroid nodule.	4	10	7
3. CT scan and NP-59 iodocholesterol scan in the diagnosis Adrenal cortical Tumors.	4	10	7
4. Pentavalent DMSA scan in the management of medullary carcinoma of thyroid.	4	10	7
5. Management of lymphoma of thyroid.	4	10	7
6. I^{131} MIBG in the management of recurrent pheochromocytoma.	4	10	7
7. Recurrent Laryngeal Nerve suturing during thyroid surgery.	4	10	7
8. Nuclear scintigraphy in the diagnosis of parathyroid adenoma.	4	10	7
9. Types of thyroplasty in the management of Recurrent Laryngeal Nerve injury.	4	10	7
10. Quick PTH assay.	4	10	7

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(LD 067) **AUGUST 2013** **Sub. Code:1904**

M.Ch. – ENDOCRINE SURGERY
Paper – IV RECENT ADVANCES IN ENDOCRINE SURGERY AND INVESTIGATIONS FOR ENDOCRINE DISEASES
Q.P.Code: 181904

Time: Three Hours **Maximum: 100 marks**

I. Elaborate on: **(2X15=30)**

1. Laparoscopic surgery for adrenal and pancreatic tumours.
2. Role of genetic analysis in management of endocrine tumours.

II. Write notes on: **(10X7=70)**

1. Isotope scan techniques for parathyroid localization.
2. Role of percutaneous injection techniques in management of thyroid tumours.
3. Bethesda system of thyroid cytology classification.
4. Intra-operative ultrasound in endocrine surgery.
5. Thyroid Receptor Antibody testing.
6. Redifferentiation therapy for thyroid tumours.
7. Role of surgery in metastatic thyroid cancer.
8. Touch imprint cytology.
9. Intraoperative anaesthetic management of pheochromocytoma.
10. Tracheal and esophageal involvement by thyroid cancer – management.

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[LF 067] **AUGUST 2014** **Sub. Code: 1904**

M.Ch. – ENDOCRINE SURGERY

Paper IV – RECENT ADVANCES IN ENDOCRINE SURGERY AND INVESTIGATIONS FOR ENDOCRINE DISEASES

Q. P. Code: 181904

Time: Three Hours **Maximum: 100 Marks**

Answer ALL questions in the same order.

I. Elaborate on: **(2 x 15 = 30)**

1. Detail the various investigations for the diagnosis of neuroendocrine tumour of gut. Discuss its management and explain molecular targeted therapy.

2. Molecular mechanism, diagnosis and management of primary Hyperaldosteronism

II. Write notes on: **(10 x 7 = 70)**

1. Clinical application of corticotrophin releasing hormone stimulation test
2. Management of persistent hyperparathyroidism after Renal transplantation
3. Parathyroid carcinoma and parafibromin
4. Advanced MRI technique in diagnosing pituitary tumours
5. Sclerostin
6. 18F- Fluorodeoxyglucose PET scan in the treatment of Adrenocortical carcinoma
7. Calcimimetics and calcilytic drugs in the management of bone and mineral disorder
8. Liquid Chromatography Tandem mass Spectrometry in Endocrine practice
9. Dehydroepiandrosterone replacement therapy-indications and clinical use
10. Temozolomide - clinical use.

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(LG 067) **FEBRUARY 2015** **Sub. Code:1904**

M.Ch. – ENDOCRINE SURGERY

Paper IV – RECENT ADVANCES IN ENDOCRINE SURGERY AND INVESTIGATIONS FOR ENDOCRINE DISEASES

Q.P.Code: 181904

Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. Critical evaluation of robotic assisted surgery for endocrine tumours.
2. Genetic assessment of familial phaeochromocytoma.

II. Write notes on: **(10 x 7 = 70)**

1. Elastography in assessment of thyroid nodules.
2. Role of selective venous sampling in endocrine tumours.
3. Gene profiling in diagnosis of thyroid nodules.
4. Intra-operative ultrasound for insulinoma.
5. Chemiluminiscence Immuno Assay.
6. Tyrosine kinase inhibitors.
7. Management of tracheal involvement by thyroid cancer.
8. Extra cervical access for thyroidectomy.
9. Adjunctive techniques for confirmation of successful parathyroidectomy
10. Retroperitoneoscopic adrenalectomy.

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[LH 067] **AUGUST 2015** **Sub. Code: 1904**

M.Ch. – ENDOCRINE SURGERY

PAPER IV – RECENT ADVANCES IN ENDOCRINE SURGERY AND INVESTIGATIONS FOR ENDOCRINE DISEASES

Q.P. Code: 181904

Time : Three Hours **Maximum : 100 marks**

Answer ALL questions

I. Elaborate on: **(2 x 15 = 30)**

1. Functional imaging modalities – diagnostic and therapeutic role in Neuroendocrine malignancies.

2. Oncogenes and Thyroid cancers.

II. Write notes on : **(10 x 7 = 70)**

1. 4 D CT scan – role in hyperparathyroidism.

2. Tyrosine kinase inhibitors in thyroid cancers

3. Mitotane therapy in adrenal malignancy.

4. Robotic Thyroid Surgeries and its complications.

5. Role of core tissue biopsy and immunohistochemistry in thyroid cancers.

6. Cortical sparing adrenalectomy.

7. Intra-op neuromonitoring in thyroid surgery.

8. Intra-op adjuncts in parathyroid surgery.

9. Mediastinal parathyroid glands and surgical options.

10. Retroperitoneoscopic adrenal surgeries and its limitations.

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(LJ 067) AUGUST 2016 **Sub. Code:1904**

M.Ch. – ENDOCRINE SURGERY

Paper IV – RECENT ADVANCES IN ENDOCRINE SURGERY AND INVESTIGATIONS FOR ENDOCRINE DISEASES

Q.P.Code: 181904

Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. Outline the signalling pathways dysregulated in thyroid cancer and briefly describe the targeted therapies available in non-resectable advanced thyroid cancer.

2. Outline the modern biochemical diagnosis of insulinoma and describe the various pre-operative localisation studies currently used.

II. Write notes on: **(10 x 7 = 70)**

1. Surgeon performed thyroid ultrasonography.
2. Localisation studies in primary hyperparathyroidism.
3. Controversies in the management of Well differentiated thyroid carcinoma (WDTC).
4. External beam Radiotherapy in differentiated thyroid cancer.
5. Technique of intraoperative nerve monitoring during thyroid surgery.
6. Causes of dysphonia during thyroid and parathyroid surgery.
7. Robotic thyroidectomy.
8. Concordant imaging for parathyroid tumors.
9. Non-invasive follicular tumours of thyroid.
10. IOPTH monitoring.

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(LL 067) AUGUST 2017 **Sub. Code:1904**

M.Ch. – ENDOCRINE SURGERY

Paper IV – RECENT ADVANCES IN ENDOCRINE SURGERY AND INVESTIGATIONS FOR ENDOCRINE DISEASES

Q.P.Code: 181904

Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. Management of lymph node metastasis from thyroid cancer.
2. Minimally invasive approaches to tumours of the adrenal gland.

II. Write notes on: **(10 x 7 = 70)**

1. Succinate Dehydrogenase (SDH) mutations and related disorders.
2. MEN I syndrome management.
3. Intra-operative nerve monitoring in thyroid surgery.
4. Robotic thyroid surgery.
5. Role of ^{131} MIBG in diagnosis and treatment.
6. Intra-operative PTH assay.
7. Nerve reconstruction in thyroid surgery.
8. Tyrosine kinase inhibitors in medullary cancer thyroid.
9. Role of Positron Emission Tomograph (PET-CT) in Endocrine surgery.
10. Screening techniques for pheochromocytoma.

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(LN 067) AUGUST 2018 **Sub. Code: 1904**

M.Ch. – ENDOCRINE SURGERY

Paper IV – RECENT ADVANCES IN ENDOCRINE SURGERY AND INVESTIGATIONS FOR ENDOCRINE DISEASES

Q.P.Code: 181904

Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. Endoscopic thyroid surgery – role and limitations.
2. Lutitium therapy in neuroendocrine malignancies.

II. Write notes on: **(10 x 7 = 70)**

1. Imaging modalities for workup of pheochromocytomas.
2. Pituitary surgeries for acromegaly in Multiple Endocrine Neoplasia type 1 syndrome.
3. Von Hippel Lindau syndrome workup and management.
4. Adrenal incidentalomas.
5. Tumor banking for endocrine tumors.
6. Elastography techniques in evaluation of thyroid or parathyroid lesions.
7. Recombinant TSH therapy.
8. Insulinoma in Multiple Endocrine Neoplasia type 1 syndrome.
9. Cinacalcet.
10. Bone mineral density, fracture risk assessment and renal changes workup for primary hyperparathyroidism.

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(LP 067) AUGUST 2019 **Sub. Code: 1904**

M.Ch. – ENDOCRINE SURGERY

Paper IV – RECENT ADVANCES IN ENDOCRINE SURGERY AND INVESTIGATIONS FOR ENDOCRINE DISEASES

Q.P. Code: 181904

Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. Outline the modern biochemical diagnosis of insulinoma and describe the various pre-operative localisation studies currently used.

2. Classify thyroid tumours and describe the newer pathological subtypes of thyroid cancer and its implications in the management and follow up.

II. Write notes on: **(10 x 7 = 70)**

1. Neuro-cutaneous markers in MEN syndromes.
2. Role of EUS in pancreatic endocrine tumours.
3. Novel imaging - modalities in pancreatic endocrine tumors.
4. Diagnostic modalities in the workup of persistent hyperparathyroidism.
5. ACR – TIRADS.
6. Advantages of robotic thyroidectomy and various approaches.
7. Approach to a patient with persistent or recurrent medullary thyroid cancer.
8. Management of cervical lymph nodes during prophylactic thyroidectomy.
9. Desmopressin stimulation test.
10. Familial hyperaldosteronism.

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(LR 067) NOVEMBER 2020 **Sub. Code: 1904**

(AUGUST 2020 SESSION)

M.Ch. – ENDOCRINE SURGERY

Paper IV – RECENT ADVANCES IN ENDOCRINE SURGERY AND INVESTIGATIONS FOR ENDOCRINE DISEASES

Q.P. Code: 181904

Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. Surgical approach to pancreatic insulinoma and therapeutic advances
2. Genetics of pheochromocytoma

II. Write notes on: **(10 x 7 = 70)**

1. Histopathology and molecular markers in diagnosis of parathyroid cancer
2. Scoring systems for malignant behavior in pheochromocytoma
3. Intraoperative PTH assay – interpretation and pitfalls
4. Day case thyroid surgery
5. VATS for mediastinal parathyroid tumours
6. Tracheal resection technique for invasive thyroid cancer
7. Management of post – insulinoma enucleation fistula
8. Persistent hypocalcemia following thyroidectomy – management
9. Status of NIFT-P in thyroid tumours
10. Cortical sparing adrenalectomy

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(MCH 0821) AUGUST 2021 **Sub. Code: 1904**

M.Ch. – ENDOCRINE SURGERY

Paper IV – RECENT ADVANCES IN ENDOCRINE SURGERY AND INVESTIGATIONS FOR ENDOCRINE DISEASES

Q.P. Code: 181904

Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. Recent advances in thyroid surgery.

2. Recent advances in disease monitoring and management in primary hyperaldosteronism.

II. Write notes on: **(10 x 7 = 70)**

1. Adrenal venous sampling.
2. Intra operative neuro monitoring in neck surgeries.
3. Haemostatic devices and topical agents used in minimally invasive neck surgeries.
4. Management of breast carcinoma in reference to micro array technology and gene expression.
5. PET scan in endocrine surgery.
6. Peptide Receptor Radionuclide Therapy (PRRT).
7. 4D CT in hyperparathyroidism.
8. Pancreatic and duodenal NET biochemical screening.
9. Pancreas and Islet Cell transplantation.
10. Mitotane.

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THE TAMIL NADU DR.M.G.R. MEDICAL UNIVERSITY

(MCH 0822) AUGUST 2022 Sub. Code: 1904

M.Ch. – ENDOCRINE SURGERY

Paper IV – RECENT ADVANCES IN ENDOCRINE SURGERY AND INVESTIGATIONS FOR ENDOCRINE DISEASES

Q.P. Code: 181904

Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. Minimal access thyroid surgery.
2. Non operative thyroid ablation techniques for benign thyroid nodules.

II. Write notes on: **(10 x 7 = 70)**

1. Teprotumumab.
2. TOETVA.
3. Role of elastography in diagnosis of thyroid and parathyroid lesions.
4. Newer localisation techniques for identifying ectopic parathyroid.
5. Recent advances in the management of Adrenocortical carcinoma.
6. Robotic thyroidectomy.
7. Ambulatory Endocrine surgery.
8. IOPTH.
9. Cryopreservation of parathyroid.
10. Role of IHC in Endocrine surgery.

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THE TAMIL NADU DR.M.G.R. MEDICAL UNIVERSITY

(MCH 0124) **JANUARY 2024** **Sub. Code: 1904**

M.Ch. – ENDOCRINE SURGERY

PAPER IV – RECENT ADVANCES IN ENDOCRINE SURGERY AND INVESTIGATIONS FOR ENDOCRINE DISEASES

Q.P. Code: 181904

Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. Remote access thyroidectomy techniques.
2. Advanced energy devices.

II. Write notes on: **(10 x 7 = 70)**

1. Parathyroid incidentaloma.
2. Normohormonal hyperparathyroidism.
3. Parathyroid gland fluorescence imaging.
4. rPTH.
5. Targeted therapy for anaplastic carcinoma.
6. Somatostatin analogues.
7. miRNA role in oncogenesis of thyroid nodules.
8. Endoscopic parathyroidectomy.
9. SARA.
10. Diagnosis and treatment of mediastinal parathyroid.

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THE TAMIL NADU DR.M.G.R. MEDICAL UNIVERSITY

(MCH 0225) **FEBRUARY 2025** **Sub. Code: 1904**

M.Ch. BRACH X – ENDOCRINE SURGERY

PAPER IV – RECENT ADVANCES IN ENDOCRINE SURGERY AND INVESTIGATIONS FOR ENDOCRINE DISEASES

Q.P. Code: 181904

Time: Three Hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 15 = 30)**

1. Debate the role of preoperative alpha blockade for pheochromocytoma.
2. Risk factors for post-thyroidectomy hypoparathyroidism and preventive strategies.

II. Write notes on: **(10 x 7 = 70)**

1. Laser speckled contrast imaging.
2. Adrenocortical nodular disease.
3. Operative approaches for mediastinal parathyroid adenoma.
4. Prophylactic versus therapeutic central compartment dissection in PTC.
5. Post-thyroidectomy syndrome.
6. Cortical sparing adrenalectomy.
7. Peptide receptor radionuclide therapy.
8. Role of frozen section in thyroid and parathyroid surgery.
9. Fluorescence imaging techniques in adrenal surgery.
10. Selpercatnib.

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