

APRIL - 2001

[KD 063]

Sub. Code : 1854

M.Ch. DEGREE EXAMINATION

(Higher Specialities)

Branch VIII — Vascular Surgery

(Revised Regulations)

**Paper IV — RECENT ADVANCES IN VASCULAR
SURGERY**

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss basic principles of antithrombotic therapy and its application in Vascular surgery. (25)
 2. Discuss current management of Portal hypertension (25)
 3. Write briefly on : (5 × 10 = 50)
 - (a) Laser in Vascular Surgery
 - (b) Thermography
 - (c) Aids and Vascular surgeon
 - (d) Angioscope
 - (e) Color doppler use in arterial diseases.
-

NOVEMBER - 2001

[KE 063]

Sub. Code : 1854

M.Ch. DEGREE EXAMINATION

(Higher Specialities)

(Revised Regulations)

Branch VIII — Vascular Surgery

**Paper IV — RECENT ADVANCES IN VASCULAR
SURGERY**

Time : Three hours

Maximum : 100 marks

Answer ALL questions

1. Discuss indications, device description procedural complications and current status of S tented grafts in Abdominal aortic aneurysm treatment. (25)
2. Describe, recent advances in Therapeutic Angiogenesis and its future perspectives. (25)
3. Write short notes on : (5 × 10 = 50)
 - (a) Extra cranial vertebral artery surgery
 - (b) EVEREST Results of Carotid end-arterectomy
 - (c) Endothelial seeding
 - (d) Sclerotherapy
 - (e) Endothelium

MARCH - 2002

[KG 063]

Sub. Code : 1854

M.Ch. DEGREE EXAMINATION

(Higher Specialities)

(Revised Regulations)

Branch VIII — Vascular Surgery

Paper IV — RECENT ADVANCES IN VASCULAR
SURGERY

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

1. Discuss percutaneous transluminal angioplasty, Atherectomy devices and stents and stented grafts. Outline the current status. (25)
2. Discuss the surgical treatment of reno vascular hypertension including a brief account of exposure of renal arteries. Outline the early and late results. (25)
3. (a) Write notes on : (4 × 10 = 40)
 - (i) Presealed graft.
 - (ii) CO₂ Angiogram.
 - (iii) Vena Caval interruption devices.
 - (iv) Current management of infected Abd. aortic prosthesis.

(b) Write 2 lines each on

(4 × 2½ = 10)

- (i) POLYBUTESTER
- (ii) CILOSTAZOL
- (iii) Fibrin glue.
- (iv) Calcium DOBESILATE

SEPTEMBER - 2002

[KH 063]

Sub. Code : 1854

M.Ch. DEGREE EXAMINATION

(Higher Specialities)

(Revised Regulations)

Branch VIII — Vascular Surgery

**Paper IV — RECENT ADVANCES IN VASCULAR
SURGERY**

Time : Three hours

Maximum : 100 marks

Answer ALL questions

1. Discuss the current concepts in the prevention of deep vein thrombosis. (25)
 2. Describe the recent developments in vascular imaging. (25)
 3. Write briefly on : (5 × 10 = 50)
 - (a) Chronic lymphoedema of lower limbs
 - (b) Venous insufficiency in pregnancy
 - (c) Coated grafts
 - (d) Endothelial cell seeding
 - (e) Venous embolectomy.
-

AUGUST - 2004

[KL 063]

Sub. Code : 1854

M.Ch. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch VIII — Vascular Surgery

**Paper IV — RECENT ADVANCES IN VASCULAR
SURGERY**

Time : Three hours

Maximum : 100 marks

Theory : Two hours and

Theory : 80 marks

Forty minutes

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL the questions.

Draw suitable diagrams wherever necessary.

I. Essay :

(2 × 15 = 30)

**(1) What are the complications associated with
stent-graft repair of abdominal aortic aneurysms.**

**(2) Discuss the current concepts in the
prevention of deep vein thrombosis.**

II. Write short notes on :

(10 × 5 = 50)

(a) Cilostazol

(b) Antioxidants

(c) Inferior vena caval filters

(d) Pulmonary capillary wedge pressure

(e) Milrinone

(f) Nitric oxide

(g) Homografts

(h) Magnetic resonance angiogram

(i) Vascular Endoscopy

(j) Homocysteine.

AUGUST - 2006

[KP 063]

Sub. Code : 1854

M.Ch. DEGREE EXAMINATION.

(Higher Specialities)

(Revised Regulations)

Branch VIII — Vascular Surgery

**Paper IV — RECENT ADVANCES IN VASCULAR
SURGERY**

Time : Three hours

Maximum : 100 marks

**Theory : Two hours and
forty minutes**

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

Answer ALL questions.

Draw suitable diagrams wherever necessary.

I. Essay :

(1) Discuss the organization of Endo Vascular room in Vascular Surgical Practice and how do you manage iatrogenic complications in the endo vascular room? (20)

(2) What are the recent advances in Vascular imaging and discuss in detail Magnetic resonance Angiography in Vascular practice? (15)

(3) Discuss carotid artery angioplasty and stenting. Compare their result with the endarterectomy in the Modern Vascular Surgical Practice? (15)

II. Short notes : (6 × 5 = 30)

- (a) Vascular graft infections.
- (b) Vascular staplers.
- (c) Neo Vasculo genesis and stem cells.
- (d) D – Dimers in thrombo embolism.
- (e) INR - long term thrombo prophylaxis.
- (f) Sclero therapy in Phlebology.

[KR 063]

Sub. Code : 1854

M.Ch. DEGREE EXAMINATION.

Branch VIII — Vascular Surgery

**Paper IV — RECENT ADVANCES IN VASCULAR
SURGERY**

Time : Three hours

Maximum : 100 marks

**Theory : Two hours and
forty minutes**

Theory : 80 marks

M.C.Q. : Twenty minutes

M.C.Q. : 20 marks

I. Long Essay :

1. Discuss the use of fenestrated grafts in endovascular stenting. (20)

2. Discuss the current concepts in the management of type B aortic dissectors. (15)

3. Discuss the mechanism of myointimal hyperplasia and the strategies to prevent it. (15)

II. Short notes : (6 × 5 = 30)

(a) Vacuum-assisted closure of wounds.

(b) 64 slice CT scan.

(c) Antegrade cerebral perfusion.

(d) Venous valve repair.

(e) Impotence following aorto-iliac surgery.

(f) Lymphoscintigraphy.

August 2008

[KT 063]

Sub. Code: 1854

M.Ch. DEGREE EXAMINATION

(Higher Specialities)

(Revised Regulations)

Branch VIII – VASCULAR SURGERY

Paper IV – RECENT ADVANCES IN VASCULAR SURGERY

Q.P. Code: 181854

Time: Three hours

Maximum: 100 Marks

ANSWER ALL QUESTIONS

Draw suitable diagrams wherever necessary.

I. Essays:

(2 x 20 = 40)

1. Hybrid procedures in management of arch aneurysm.
2. Discuss endovascular intervention for femoro distal arterial occlusions.

II. Write short notes on:

(10 x 6 = 60)

1. TASC guidelines for management of PVD.
 2. Vascular interventional surgical trainer.
 3. Surveillance for endoleak.
 4. Radio frequency ablation.
 5. Gadolinium nephropathy.
 6. Cell saver.
 7. Blood vessel tissue engineering.
 8. Stem cell therapy in limb ischemia.
 9. Vessel closure clips.
 10. Arterial assist devices.
-

August 2009

[KV 063]

Sub. Code: 1854

MASTER OF CHIRURGIAE (M.Ch.) DEGREE EXAMINATIONS

(Super Specialities)

Branch VIII – VASCULAR SURGERY

(Revised Regulations)

Paper IV – RECENT ADVANCES IN VASCULAR SURGERY

Q.P. Code: 181854

Time: Three hours

Maximum: 100 Marks

Answer ALL questions

Draw suitable diagrams wherever necessary.

I. Essays:

(2 x 20 = 40)

1. Describe the clinical presentation, pathology and endovascular management for infra renal abdominal aortic aneurysm.
2. Discuss the theories of atherogenesis and describe the haemodynamic factors in atherosclerosis. What are the current recommendations for aortic reconstruction and infra inguinal arterial reconstruction?

II. Write short notes on:

(10 x 6 = 60)

1. Gemfibrosil.
2. Micro surgical lymphatic reconstruction.
3. In vivo gene transfer.
4. Surface modified grafts.
5. Bioengineered blood vessels.
6. Modulation of immune system in vascular disorders.
7. Photodynamic treatment on biological grafts.
8. Cell saver.
9. Post phlebitic sequelae.
10. Hybrid procedures.

August 2011

[KZ 063]

Sub. Code: 1854

**MASTER OF CHIRURGIAE (M.Ch.) DEGREE EXAMINATION
(SUPER SPECIALITIES)**

BRANCH VIII – VASCULAR SURGERY

RECENT ADVANCES IN VASCULAR SURGERY

Q.P. Code:181854

**Time : 3 hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on :

**Pages Time Marks
(Max.) (Max.) (Max.)**

- | | | | |
|--|----|----|----|
| 1. Discuss in detail about the endovascular intervention for infra inguinal occlusive arterial disease. | 11 | 35 | 15 |
| 2. Discuss in detail about the current concepts in the management of acute limb ischemia with special reference to reperfusion injury. | 11 | 35 | 15 |

II. Write notes on :

- | | | | |
|--|---|----|---|
| 1. Newer Thrombolytic Agents. | 4 | 10 | 7 |
| 2. Bio functional vascular Prosthesis. | 4 | 10 | 7 |
| 3. Cryopreserved allograft. | 4 | 10 | 7 |
| 4. Cerebral hypo perfusion Syndrome. | 4 | 10 | 7 |
| 5. Absorbable Stents. | 4 | 10 | 7 |
| 6. Arterial Assist Device. | 4 | 10 | 7 |
| 7. Compression pump. | 4 | 10 | 7 |
| 8. Malperfusion syndrome. | 4 | 10 | 7 |
| 9. Radio frequency ablation of varicose veins. | 4 | 10 | 7 |
| 10. Cardiac risk stratification. | 4 | 10 | 7 |

[LB 025]

AUGUST 2012

Sub. Code: 1854

M.Ch – VASCULAR SURGERY

Paper – IV RECENT ADVANCES IN VASCULAR SURGERY

Q.P. Code: 181854

**Time : 3 hours
(180 Min)**

Maximum : 100 marks

Answer ALL questions in the same order.

I. Elaborate on:

**Pages Time Marks
(Max.)(Max.)(Max.)**

- | | | | |
|--|----|----|----|
| 1. Discuss Current strategy in prevention of Deep Vein Thrombosis. | 16 | 35 | 15 |
| 2. Discuss recent advances in vascular imaging and discuss magnetic Resonance angiography in detail. | 16 | 35 | 15 |

II. Write notes on:

- | | | | |
|---|---|----|---|
| 1. VATS. | 4 | 10 | 7 |
| 2. Inferior Vena Caval Filters. | 4 | 10 | 7 |
| 3. Pharmacology of Cilostazol. | 4 | 10 | 7 |
| 4. Foam Sclero Therapy. | 4 | 10 | 7 |
| 5. Lytic Therapy in Deep Vein Thrombosis. | 4 | 10 | 7 |
| 6. Cryo Preserved Allograft. | 4 | 10 | 7 |
| 7. Compression Pump. | 4 | 10 | 7 |
| 8. Pelvic Venous Congestion Syndrome. | 4 | 10 | 7 |
| 9. Pre operative Vein Napping. | 4 | 10 | 7 |
| 10. Carbondioxide Angiogram. | 4 | 10 | 7 |

M.Ch. – VASCULAR SURGERY
Paper – IV RECENT ADVANCES IN VASCULAR SURGERY
Q.P.Code: 181854

Time: Three Hours

Maximum: 100 marks

I. Elaborate on:

(2X15=30)

1. Endovascular Treatment of Infra Inguinal Disease and Surgical Management of Infra inguinal disease – merits and demerits.
2. Endovenous Treatment of Varicose Veins – Laser Versus Radio Frequency Ablation.

II. Write notes on:

(10X7=70)

1. Closure Devices.
2. Atherectomy Devices.
3. Drug Eluting Stents.
4. Prasugrel.
5. IVC filters.
6. Tissue – Engineered Grafts.
7. Foam Sclerotherapy.
8. Autologous Stemcells.
9. Trellis Device.
10. Tirofiban.

[LF 028]

AUGUST 2014

Sub. Code: 1854

M.Ch. – VASCULAR SURGERY

Paper IV – RECENT ADVANCES IN VASCULAR SURGERY

Q. P. Code: 181854

Time: Three Hours

Maximum: 100 Marks

Answer ALL questions in the same order.

I. Elaborate on:

(2 x 15 = 30)

1. Describe the recent advances in “Therapeutic angiogenesis” and their future applications.
2. Discuss briefly the principles of laser angioplasty.
Describe the types of lasers available and their relative merits.

II. Write notes on:

(10 x 7 = 70)

1. Intravascular ultrasound.
2. Newer vascular grafts.
3. Compare “In-stent Stenosis” and “Graft restenosis”.
4. Platelet Derived Growth Factor.
5. Cutting balloons.
6. Recent advances in the management of lymphedema.
7. Current theories of renovascular hypertension.
8. Newer imaging techniques in vascular disease.
9. Prostaglandin infusion therapy.
10. Stabilized umbilical vein graft.

[LH 028]

AUGUST 2015

Sub. Code: 1854

M.Ch. – VASCULAR SURGERY

PAPER IV – RECENT ADVANCES IN VASCULAR SURGERY

Q.P. Code: 181854

Time : Three Hours

Maximum : 100 marks

Answer ALL questions

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the recent advances in the endovascular management of Thoraco Abdominal Aortic Aneurysms.
2. Discuss the clinical practice guidelines for Chronic Venous Insufficiency.

II. Write notes on :

(10 x 7 = 70)

1. Steam Sclerotherapy.
2. Tissue Inhibitors of Matrix Metalloproteinases.
3. Transjugular Intrahepatic Portosystemic Shunts.
4. Vascular Closure devices.
5. Platelet derived growth factor.
6. Stem cell therapy.
7. Thrombo Elasto Graphy.
8. Recent advances in treatment of diabetic foot
9. Immunosuppressants in vascular diseases.
10. Pelvic congestion syndrome.

(LJ 028)

AUGUST 2016

Sub. Code:1854

M.Ch. – VASCULAR SURGERY

Paper IV – RECENT ADVANCES IN VASCULAR SURGERY

Q.P.Code: 181854

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Gene therapy in vascular diseases.
2. Management of non occlusive venous hypertension.

II. Write notes on:

(10 x 7 = 70)

1. Embolic protection devices.
2. Mechanical thrombolysis.
3. Recent antithrombotic agents.
4. Antidote for newer oral anticoagulants.
5. Recent advances in the management of acute arteritis with limb Ischemia.
6. Management of trash foot.
7. Varitherna foam sclerotherapy.
8. Retrograde angioplasty in lower limb.
9. Adjuncts to vascular anastomosis.
10. Chronic cerebro spinal venous insufficiency.

M.Ch. – VASCULAR SURGERY

Paper IV – RECENT ADVANCES IN VASCULAR SURGERY

Q.P.Code: 181854

Time: Three Hours

Maximum: 100 Marks

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

1. Discuss the advances in non – invasive and invasive vascular laboratory techniques.
2. Discuss the newer oral anticoagulants, their mechanism of action and advantages and disadvantages over existing oral anticoagulants.

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

1. Abdominal compartment syndrome.
2. Radionuclide angiography.
3. Thoracoscopic sympathectomy.
4. Recent Advances in treatment of Diabetic foot.
5. Infected groin after a distal bypass for diabetic foot: tips and tricks to salvage graft.
6. Pharmaco mechanical thrombolysis.
7. Timing of intervention of type B Aortic dissections comparison of current guidelines.
8. Strategies to manage in stents restenosis.
9. Spinal protection during Aortic Surgeries.
10. Tibial angioplasty.

(LN 028)

AUGUST 2018

Sub. Code: 1854

M.Ch. – VASCULAR SURGERY

Paper IV – RECENT ADVANCES IN VASCULAR SURGERY

Q.P.Code: 181854

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Discuss the recent TASC classification of Femoro popliteal disease and their evidence based management.
2. Enumerate and analyse clinical trials on management of Carotid Artery Disease.

II. Write notes on:

(10 x 7 = 70)

1. Carbondioxide Angiography.
2. Hybrid procedures for Thoraco Abdominal Aortic Aneurysms.
3. Hyperhomocysteinemia.
4. Hyperbaric Oxygen therapy.
5. Brachytherapy in Vascular diseases.
6. Idraparinux.
7. Hypothermic Circulatory Arrest.
8. Hypoplastic Aortic syndrome.
9. Retrievable Vena Caval Filters.
10. Metabolic syndrome.

(LP 028)

AUGUST 2019

Sub. Code: 1854

M.Ch. – VASCULAR SURGERY

Paper IV – RECENT ADVANCES IN VASCULAR SURGERY

Q.P. Code: 181854

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Current guidelines for AAA repair – open vs EVAR.
2. Discuss Salvage Procedures in Failing AV Fistula.

II. Write notes on:

(10 x 7 = 70)

1. Drug eluting Balloons.
2. Biomimetic Stents.
3. Atherectomy Devices.
4. Embolisation Materials.
5. Newer anticoagulants – benefits and limitations.
6. Clinical trials and renal revascularisation.
7. Protocol for PTA of peripheral arterial stenosis.
8. Newer drugs in the treatment of hyperlipidaemia.
9. Isotopes in Vascular Surgery.
10. Prevention and treatment of spinal cord ischaemia post TEVAR.

(LR 028)

**NOVEMBER 2020
(AUGUST 2020 SESSION)**

Sub. Code: 1854

M.Ch. – VASCULAR SURGERY

Paper IV – RECENT ADVANCES IN VASCULAR SURGERY

Q.P. Code: 181854

Time: Three Hours

Maximum: 100 Marks

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

1. Classify aortic dissection and discuss the treatment options for malperfusion syndrome
2. Discuss the recent developments in the management of acute iliofemoral deep vein thrombosis

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

1. Post-TEVAR spinal cord ischemia
2. Vascular closure devices
3. Novel lipid lowering drugs
4. Embolizing agents
5. Atherectomy devices
6. Tissue engineered vascular grafts
7. Trials in the management of AAA
8. Robotics in vascular surgery
9. Vena cava filter devices
10. HERO graft

(MCH 0821)

AUGUST 2021

Sub. Code: 1854

M.Ch. – VASCULAR SURGERY

Paper IV – RECENT ADVANCES IN VASCULAR SURGERY

Q.P. Code: 181854

Time: Three Hours

Maximum: 100 Marks

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

1. Discuss the SVS guidelines for the management of abdominal aortic aneurysm.
2. Discuss the merits and demerits of CAS and CEA and the trials comparing the two.

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

1. Cerebral protection devices.
2. In Stent restenosis.
3. Embolisation techniques for AVM.
4. Endoleak.
5. Endovascular AV access.
6. Drug eluting stents.
7. Trials with drug eluting balloons in peripheral vascular disease.
8. Hybrid operating suite.
9. Endografts TAAA.
10. Non-thermal endovenous ablation.

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

[MCH 0222]

FEBRUARY 2022

Sub.Code :1854

M.Ch. – VASCULAR SURGERY

Paper IV – RECENT ADVANCES IN VASCULAR SURGERY

Q.P. Code: 181854

Time: Three Hours

Maximum: 100 Marks

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

1. Define Endarterectomy. Discuss the various types of Endarterectomy .
2. Discuss the etiology, clinical presentation, diagnosis and management of acute mesenteric ischemia.

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

1. Superior vena cava syndrome.
2. Angiosomes of Ankle and Foot.
3. Treatment options for Secondary Varicose veins.
4. Composite graft.
5. Graft surveillance.
6. Adamkiewicz artery.
7. Tissue Engineered Vascular graft.
8. Percutaneous thrombectomy device.
9. Low Molecular Weight Heparin.
10. Techniques of iliac artery stenting.

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

(MCH 0822)

AUGUST 2022

Sub. Code: 1854

M.Ch. – VASCULAR SURGERY

Paper IV – RECENT ADVANCES IN VASCULAR SURGERY

Q.P. Code: 181854

Time: Three Hours

Maximum: 100 Marks

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

1. Objectives and recommendations of Global Vascular Guidelines on chronic limb threatening ischemia.
2. Management of juxta renal AAA and write briefly on renal protection Strategies.

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

1. Current concepts of damage control surgery in vascular trauma.
2. Newer anticoagulants.
3. Evidence based interventions in asymptomatic carotid stenosis.
4. Current guidelines with evidences in the management of renovascular disease.
5. Superficial venous interventions in venous leg ulcer -current Recommendations.
6. Technique of total laparoscopic aorto iliac reconstruction.
7. Recent advances in stents.
8. Intra vascular lithotripsy.
9. Micrnas (miRNAs).
10. Current strategies in below the ankle interventions.

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

(MCH 0124)

JANUARY 2024

Sub. Code: 1854

M.Ch. – VASCULAR SURGERY

PAPER IV – RECENT ADVANCES IN VASCULAR SURGERY

Q.P. Code: 181854

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Endovascular Therapeutic Techniques for chronic limb threatening ischemia.
2. Schobinger staging and Treatment of high flow vascular malformations.

II. Write notes on:

(10 x 7 = 70)

1. Vascular stent types and characteristics.
2. Direct oral anticoagulants.
3. Percutaneous thromboembolectomy.
4. Balloon angioplasty.
5. Cryopreserved allograft.
6. Trans carotid Artery revascularization.
7. In situ vein graft.
8. Laparoscopic aortic bypass Techniques.
9. Sealents.
10. Transcutaneous oxygen tension.

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

(MCH 0225)

FEBRUARY 2025

Sub. Code: 1854

M.Ch. BRACH VIII – VASCULAR SURGERY

PAPER IV – RECENT ADVANCES IN VASCULAR SURGERY

Q.P. Code: 181854

Time: Three Hours

Maximum: 100 Marks

I. Elaborate on:

(2 x 15 = 30)

1. Transcarotid artery revascularisation – technique, benefits and complications.
2. Physician modified endovascular aortic graft – indications, technique.

II. Write notes on:

(10 x 7 = 70)

1. Current management of asymptomatic carotid artery stenosis.
2. Atherectomy devices – mechanism of action and complications.
3. Catheter-directed thrombolysis for iliofemoral deep venous thrombosis.
4. Endovascular anchors in endovascular graft fixation.
5. Balloon expandable stents – role in endovascular surgery.
6. Pedal plantar loop technique in plantar revascularisation.
7. Intravascular lithotripsy.
8. Hybrid operations in endovascular surgery.
9. Vascular closure devices.
10. Spinal protection strategies in aortic surgery.
