Course Curriculum

Name of the Course: PDCC in Vitreo Retina

Goals

The goals of the PDCC program are:

To provide candidates broad exposure to medical retina.

To train in all aspects of latest diagnostic and therapeutic instrumentation and techniques
To provide adequate opportunities for conducting applied and clinical research

Being in a referral retina set up, the candidate will get to see wide variety of medical and surgical cases. The PDCC is suitable for those who are considering a career in private practice or academic ophthalmology.

Skills and Attitudes

The candidate shall also acquire modern diagnostic skills like fundus Fluorescein angiography, B scan Ultrasonography, optical coherence tomography etc. Most of the retinal disorders require long terms follow-up and the diagnosis can vary from case to case. The candidate shall be made aware of the importance of the above facts.

This PDCC program involves comprehensive patient care instruction with state of the art diagnostic. The course provides them with up-to-date skills to ensure that diagnosis and treatment are accurate and timely. A patient friendly and compassionate attitude is inculcated at every stage of the knowledge and skills transfer program.

Course contents (Syllabus)

Essential knowledge in diagnosing various vitreo retinal diseases will be imparted; the following cases will be stressed upon.

MEDICAL RETINA

Vascular retinal disorders:

Diabetic retinopathy
Arterial and venous occlusive disease, acute and chronic
Ischaemic optic neuropathy, giant cell arteritis
Carotid artery disease and ocular features of thromboembolic disease
Hypertensive retinopathy
Retinal arterial macroaneurysm

Uveitis and Retinal Vasculitis

Clinical features, investigation and management of uveitis, including HLA B27 related diseases, intermediate uveitis, sarcoidosis, Behcets disease, juvenile idiopathic arthritis, and masquerade syndrome.

HIV, CMV, HSV, HZV, toxoplasma, toxocara, syphilis, TB, Lyme disease

Age-related macular degeneration
Epidemiology
Pathology
Management (laser, PDT, nutritional, pharmacological, biological, optical and general support measures)

Common Genetic disorders of the retina:
Retinitis pigmentosa
Stargardt's disease
Leber's congenital amaurosis
Colour blindness

Common Miscellaneous disorders of retina and macula:
Retinoschisis
Central serous retinopathy
Cystoid macular oedema
Drug-induced macular disease
Myopic retinal degeneration

Essential Investigation and Diagnostic Procedures

The hospital is well equipped with all latest and state of the art equipments. The candidate will get to learn and operate

FFA system
Ultrasound
Optical coherence tomography
UBM
Retinal lasers
Electrophysiological studies

The candidate shall be independently doing FFA, B-scan, OCT and interpreting them. Retinal lasers shall be taught.

Core curriculum and competence

Clinical evaluation of rhegmatogenous retinal detachment leading to the development, in discussion with the patient, of a suitable management plan.

Clinical evaluation of medical retinal disease (including diabetic retinopathy and retinal vein occlusion) leading to the development, in discussion with the patient, of a suitable management plan.

Clinical evaluation of "wet" AMD, and the development of a suitable management plan.

Clinical evaluation of suspected intraocular tumour, leading to the development of a suitable management plan.

Appropriate use and interpretation of fluorescein angiography.

Appropriate use and interpretation of investigations for uveitis and retinal vascular disease.

Appropriate use and interpretation of electrodiagnostic studies in the context of retinal disease.

Management of ischaemic retinopathies by scatter laser photocoagulation, by slit lamp and indirect ophthalmoscope delivery systems.

Management of maculopathies by focal and grid laser photocoagulation.

Management of retinal breaks by laser photocoagulation and cryotherapy.

Management of endophthalmitis by intraocular fluid biopsy, planning an appropriate pharmacological therapeutic strategy, and the administration of intraocular drug therapy.

Organisation of appropriate screening for diabetic retinopathy.

Treatment of SR-NVM.

Management of intraocular tumours, to include radiotherapy and local resection.

Specialist clinics dealing with retinal problems associated with inflammatory eye disease, HIV, ocular malignancy and genetic disease.

Specialist clinics dealing with the systemic problems associated with diabetes, rheumatological disease, genetic disease or other relevant general medical disorders.

Histopathological examination of (intra)ocular tumours.

Low vision appliances and the social implications of blind and partial sight registration.

All candidate will be regularly coming to the OT to assist and observe the consultants.

Thus, the aim of the PDCC will be to equip the candidate to diagnose and manage the vitreo retinal disorders and be comfortable in all diagnostic procedures.

The candidate shall also be participating in various ongoing research projects in the hospital. They will be encouraged to present papers and strive for publications.

Candidate will be taught patient interaction and counselling. The major topics covered:

Diabetic retinopathy and management
ARMD and management
Macular dystrophies
Laser photocoagulation
Retinal Vascular occlusions
Uvetis
Intraocular tumors

Teaching / Learning Activities

Departmental activities

Practical clinical training of post graduates (MS in ophthalmology): Candidate are expected to participate in the training of MS candidates. This can involve activities such as discussion of cases in an informal way on a regular basis to formal presentations in weekly meetings.

Training of paramedical, and community health workers: Candidate may be requested by advanced notice to participate in training of paramedical personnel in the hospital or team members in community level. Hands on experience of conducting camps, communication and training of filed workers is expected to provide excellent experience and learning for the candidate.

Journal Access: Our institution has access (both hard copies and online) to peer-reviewed, reputed journals. The candidate will be guided by their faculty to regularly update their knowledge by reviewing latest articles from these journals.

Participation in state level and national level conferences, CMEs, seminars: candidates are expected to present at least one paper/ poster during their tenure in a CME meeting outside of the institution.

Research Methodology Training: Periodically (every 3-6 months) training will be organized to cover the following topics:

Research paper writing : basics
Basics of epidemiology and biostatistics
Regulatory issues in human research: Indian regulations and others
Good clinical Practice (GCP) training

Participation in Departmental Activities

Journal review meetings: Will be held. One of the presenters will (typically a candidate or a post-graduate) presents an interesting article from a recent journal. The validity of research methods, the findings, the applicability, and clinical implications of the findings will be critically reviewed and discussed. One of the faculty members moderates the entire proceedings and will summarize the discussion at the end of the session.

Seminars: Subject seminars will be held once a week. Topics of importance are covered. Either the candidate or a faculty will present a detailed account of a a particular topic for ex. : a diseases or drug or new therapy etc. Interaction is strongly encouraged in such presentations.

Clinico-pathological conferences: Basic science faculty will be invited to discuss challenging cases wherein a diagnosis was finally achieved through the laboratory help.

Interdepartmental meetings: These will be of great importance in better understanding of diseases which have involvement of different disease processes or involve multiple structures in

the eye. Also some the patients may have associated systemic conditions and having a meeting with other specialists such as physicians, neurologists, endocrinologists may be of great importance.

Community work- camps/ filed visits: Candidates are expected to participate in community programs.

Clinical case presentations: Learning by case study approach is a well established method of training and candidate will be strongly encouraged to discuss cases with the mentors on a regular basis.

Participation in conferences/ presentation of papers: Candidates are strongly encouraged to work with faculty in producing good quality research and they are encouraged to present and publish such papers. One paper presentation or a journal article submission is required for course completion.

Monitoring of teaching and communications skills:
Grading and appraisal of post graduate teaching seminars: Faculty members will critically apprise a candidate of their performance during a seminar or case presentation that they may do for the post graduates.

Monitoring of research:
Candidate are expected to complete at least one project work during the course duration which will result in one submission to a conference and or a journal

Recommended Books and Journals

The Current American Academy of Ophthalmology Basic and Clinical Science Course (12 volumes)

Abrams D. Duke Elder's *Practice of Refraction*. Churchill Livingstone. This text covers the basic principles of refraction.

Duane's Clinical Ophthalmology By William Tasman, Edward A. Jaeger, Thomas David Duane 2005

Principles and Practice of Ophthalmology by Daniel Myron Albert, Frederick A. Jakobiec - 2000. *Principles and Practice of Ophthalmology*. W B Saunders.

Ophthalmology, 2nd Edition By Myron Yanoff, MD and Jay S. Duker, MD

Kanski JJ. *Clinical Ophthalmology*. Butterworth/Heinemann. Fifth Edition

The The Wills Eye Manual: Office and Emergency Room Diagnosis and Treatment of Eye Disease (Paperback)

Retina speciality specific books:

Retina - The Fundamentals	Gloria
Retinal Detachment-Second Edition	Charles. P. Wilkinson
Vitreo Retinal Surgical Techniques	Gholam A Peyman
Retina - Second Edition - Vol 1	Stephen J. Ryan
Retina - Second Edition - Vol 2	Stephen J. Ryan
Macular Diseases - Fourth Edition - Vol 1	Gass
Macular Diseases - Fourth Edition - Vol 2	Gass
Atlas of Optical Coherence Topography	Vishali Gupta
Atlas of Fundus Flourescence Angiography	Shetty, Sharma
The Surgical Rehabilitation of Vision - Gower	Lee T Nordan
Clinical Retina	David A Quillen
Retina Vitreous Macular - Vol 1 & Vol 2	Shields

Journals:

Indian Journal of Ophthalmology
Chakshu: Journal of Karnataka Ophthalmological Society
Ophthalmology
American Journal of Ophthalmology
British Journal of Ophthalmology
Archives of Ophthalmology

Survey of Ophthalmology
Journal of Glaucoma
Cornea
Journal of Cataract & Refractive Surgery
Retina
Journal Paediatric Ophthalmology & Strabismus