

OPHTHALMOLOGY AND ENT CONDITIONS.

BY MRS MUOKI.

VISION

VISUAL ACUITY TEST

- **Using Snell chart.**
- It has denominator and numerator.
- The distance between the patient and the object should be 6 m or 20 feet.
- Numerator refers to the distance between the person and the chart.
- Denominator represents the smallest letter which the patient can read.

Cont.....

- **Using hand movement.**
- You move your hand up and down and if the patient can notice you report the patient can notice.
- If the patient cannot see the arm movement you report the patient cannot see eye movement.
- **Using light perception.**
- If the patient cannot see then there is no perception of light.
- If the patient can see light then there is perception of light.
- ❖ Remember you test and report both eyes separately.

REFRACTION ERRORS

- Occurs due to short or elongated eyeballs preventing light from focusing on the retina.
- Refraction errors are short sightedness(myopia) and long sighted (hyperopia).
- treatment is use of contact lens, eye glasses and surgery.

CONDITIONS OF THE EYE

EYE LID AND TEAR GLAND DISODERS.

- The eye lid plays a key role in protecting the eye, helps in spread of moisture on the surface of the eye during blinking and mechanical damage against injury.
- Tears are salty fluids that continuously bath the surface of the eye to keep it moist and are produced from lacrimal duct.

BLEPHARITIS

- This is inflammation of the eye lid.
- Causes:
 - staphylococcal aureus.
- Sign and symptoms:
 - itching, redness, scarring and a feeling of something in the eye.
- Management:
 - Keep the eye clean and use antibiotics.

STYE

- Infection where one or more glands at the edge of the eye lid forms an abscess and ruptures releasing puss.
- Causes:
 - staphylococcus.
- Sign and symptom
 - Redness, tenderness, swelling, sensitivity to light, tinny yellowish sport on the centre of the swollen region and ruptures.
- Management
 - Keep the eye clean, apply antibiotics, hot compression and use of antiseptic too.

CONJUNCTIVITIS

- Conjunctiva is a thin tough lining the back of the eye lid and Irish. It protects the in inner eye.
- Inflammation of the conjunctiva.
- Causes:
 - Bacteria, virus or allergic reaction.
- Sign and symptoms:
 - Redness, itching, thick discharge and swelling of eye lid.
- Management:
 - Keep the eye clean, antibiotics and steroids.

GONOCOCCAL CONJUNCTIVITIS

- Infection of the new born during delivery from the mother who have gonorrhea.
- Sign and symptoms.
- Pain, redness swelling and abscess in the cornea.
- Management:
- Screening and treatment of all women with vaginal discharge antenatally and tetracycline eye ointment for the new born.

UVETIS

- Inflammation of the uvea.
- Uvea consist of Irish, cilliary muscle and choroid. The irish is colored ring around the black pupil and often closes like the commercial lens.
- Cilliary body is set of muscles that make lens thicker so as to focus closer object and thins so as to focus fur objects.
- Choroid is the inner lining of the eye extending from the edge of the cilliary muscle to the back of the eye.

Cont.....

➤ Cause

- Infection like (TB and syphilis) and allergy.

➤ Sign and symptoms

- Severe pain, blurred vision, redness, clouding of the fluids that fills the eye and visible blood vessels.

➤ Management

- antibiotic, atropine and steroids.

RETINITIS

- Retina is the inner most lining of the eye which is well adapted for stimulation of light rays.
- Is inflammation of the retina in the eye.
- Causes
 - Infection agent like toxoplasmosis and cytomegalovirus.
- Sign and symptoms
 - Presence of floaters in your vision.
 - Blurred vision.
 - Loss of side vision.

Cont.....

➤ Treatment

- Supplements of vitamin A lutein and oily fish high in the omega fatty acids.
- Sunglasses to protect from UV light.
- Antiviral medication for virus caused retinitis.

RETINAL DETACHMENT

- Occurs when the thin lining at the back of the eye called retina detaches begin to pull away from the blood vessel that supply them with blood thus leading death of the affected eye.
- Causes
 - Retina becoming thinner and more brittle with age and pulling away from underlying blood vessels.
 - It can also be caused by direct damage.
 - Advanced diabetes.

Cont.....

➤ Sign and symptoms.

- sudden appearance of floaters, black dots, specs or streaks.
- Sudden short flashes of light in the affected area lasting more than second.
- Blurring or distortion of the vision.

➤ Treatment

- Reattachment through surgery.
- Vitrectomy(removing fluid from the inside of the eye and replacing it with either gas or silicon bubble) .

➤ Complication:

- Glaucoma, cataract, bleeding inside the eye and

KERATITIS

- Cornea is the outer most layer of the eye and it covers the Irish, pupil and anterior chamber of the eye.
- Keratitis is the inflammation of the cornea.
- Causes:
 - Bacteria, virus and fungus.
- Sign and symptoms;
 - Redness, pain, excessive tear, blurred vision , sensitivity to light and feeling some thing in the eye.

Cont.....

➤ Management:

- Treatment is according to its cause for bacteria use antibiotic, for fungus use antifungal and for virus use antiviral drugs.

➤ Complication

- Chronic corneal inflammation.
- Cornea swelling and scarring.
- Blindness and temporary or permanent reduction of vision.

EXOTHALMOS/PRPOTOSIS

- Is bulging of the eye Anteriorly out of the orbit and can be bilateral or unilateral.
- Causes:
 - Infection like cellulitis.
 - Cushing syndrome.
 - Neoplastic condition like tumours.
 - Cyst like dermoid cyst.

Cont.....

- Signs and symptoms
 - Pain, dry eye, eye irritation and eye sensitivity to light.
- Management
 - Treat according the cause of the exophthalmos.
 - Surgery to remove tumour.

GLAUCOMA

- Is a condition where there is increased pressure inside the eye and puts pressure on the optic nerve.
- Signs and symptoms
- Intense eye pain, red eye, headache, blurred vision.
- Causes.
- Blockage in the part of the eye that allows fluid to drain from it
- Treatment
- Eye drops to reduce pressure in the eye.
- Lesser treatment. To open up the blockage.

CATARACTS

- This occurs when there is changes in the lens of the eyes and causes to become less transparent leading to misty or cloudy vision.
- Sign and symptoms
 - Difficult to see in dim or very bright light.
 - Uncomfortable to look at glare of bright light.
 - Less clear colour and double vision.
- Cause
 - Eye injury, high dose of corticosteroids, long term uvetis.
- Treatment.
 - Surgery by removing the cloudy lens.

TRACHOMA

- Is an infectious by a bacteria called Chlamydia trachomatis. This cause roughening of the eye lids.
- Sign and symptoms.
- Eye discharge, swelling of lymph node, sensitivity to bright light, increased heart rate and swollen eye lid.
- Causes
- It is caused by Chlamydia trachomatis.
- Treatment: Antibiotics and ant inflammation drugs.

CONJENITAL ABNORMALITIES OF THE EYE

- These are condition that arise from problems in developmental process of the eye.
- They include: Anothalmia(no eye), Mircothalmia(small eye), coloboma(failure of the optic fissure to close) and optic nerve hypoplasia (undeveloped optic nerve).
- Symptoms are abnormal looking eye or reduced vision.
- Treatment focuses on maximal visual potential with glasses and patches. Surgery to correct the anomaly if possible.

BENIGN TUMOR OF THE ORBIT

- Develops from infancy and later life. Benign tumors are masses characterized by the lack of infiltration in the surrounding tissue. Examples: cystic Dermoid cyst, mucocele, hemangioma, lymphangiomas, lacrimal tumors
- To prevent recurrences benign masses are excised completely
- Subtotal resection may be indicated in deep benign tumors
- Complete removal of the tumors may endanger visual function

BENIGN TUMORS OF EYELIDS

- Nevi may be unpigmented at birth and enlarged and darken in adolescence.
- Hemangiomas are vascular capillary tumors that may be bright, superficial
- Milia are small, white, slightly elevated cysts of the eyelid
- Xanthelasma are yellowish, lipid deposits on both lids near the inner angle of the eye that commonly appears as a result of aging of skin
- Molluscum contagiosum lesions are flat, symmetric growth along the lid margin caused by virus
- Surgical excision, electrocautery for cosmetic reasons

BENIGN TUMORS OF THE CONJUNCTIVA

- Conjunctiva nevus, a congenital benign neoplasm, is a flat , slightly elevated, brown spot that becomes pigmented during late childhood or adolescence.
- Melanosis acquired at middle age which tends to wax and wane
- Dermolipoma is a congenital tumor that manifests as a smooth , rounded growth in the conjunctiva near the lateral canthus.
- Papillomas –are soft with irregular surface and appear on the lid margin.
- Treatment consist of surgical excision.

MALIGNANT TUMORS OF ORBIT

- Rhabdomyosarcoma is most common malignant tumor in childhood
- Symptoms include; painless proptosis of one eye followed by lid swelling , conjunctival chemosis, and impairment of ocular motility and common site of metastasis is the lung
- **Management:** surgery, radiation ,adjuvant chemotherapy

MALIGNANT TUMORS OF THE EYELID

- **Basal cell carcinoma**- appears as a painless nodule that may ulcerate does not metastasize . it appears on the lower lid margin near the inner canthus which appears white margin
- **Squamous cell carcinoma**- grows painlessly ,tends to ulcerate ,it can metastasize to lymph node
- **Malignant melanoma**- may not be pigmented . can arise from nevi , metastasize to other organs
- **Management:** complete excision followed by reconstruction with skin grafting , radiation , early diagnosis , emotional support.

MALIGNANT TUMOR OF CONJUCTIVA

- Conjunctiva carcinoma grows in exposed area of conjunctiva , grows gradual and metastasis are rare. Lesions are whitish due to keratin formation
- **Management:** surgical incision
- To avoid recurrence pt usually undergoes radiation therapy and cryotherapy after excision

GENERAL CARE OF THE EYE

- Eat well- balanced diet with sufficient vitamin maintains eye health well being.
- Maintain proper hygiene of the eyes, this will reduce susceptibility to infection to the eye.
- Regular eye checkup, so that problems are identified early and intervention made before it is out of hand.

Cont.....

- quit smoking, as smoking damages the eye muscles and blood vessel thus increasing risk of age related muscular degeneration.
- Exercise regularly, as it keep you eye healthy by pumping more blood and oxygen to the eyes.
- Protect your eye from harmful UV rays by wearing sun glasses as this reduces the chance of contacting cataracts and other eye problems.

ENT CONDITIONS

BY MRS MUOKI

HEARING LOSS

- Conductive hearing loss is where the sound transmitted In to the inner ear is interrupted by obstacles or disease process
- Sensory neuron hearing loss is loss of hearing due to damage of the organ for hearing or the cranial nerve.

TESTING SENSE OF HEARING (AUDITORY ACUITY)

- Whisper test.
- The examiner covers one ear, then whisper softly from a distance of 1 to 2 feet from the ear at a side where the patient is not facing.
- Whatever you whisper to the patient you tell the patient to repeat what you have whispered.
- A patient with no hearing problem will be able to say what you have whispered.

CONT.....

➤ **Weber test (tuning fork)**

- The tuning fork is tabbed and brought on the mastoid bone to hear the vibration.
- A normal person with normal hearing will hear the sound in both ears and they will be equal.
- A person with conductive hearing loss hears better in the affected hear.
- For sensory neural loss hears better in the ear that is not affected.

Cont.....

➤ **Rinne test**

- The examine using the tuning folk vibrates in two different position 2 inches fro the opening of canal or the mastoid bone.
- As the position changes the patient is asked to indicate which tone is louder.

Cont.....

- A person with normal hearing report that air conducted sound is louder than the bone conducted sound.
- In conductive hearing loss bone conducting is longer than air conducting sound.

Cont.....

➤ **AUDIOMETRY TEST**

- Is testing of hearing loss using diagnostic instrument.
- In the test sound of musical can be used. The louder the tone before the patient perceive the greater the loss.
- Spoken words are used to determine the ability to hear and discriminate sounds and word in spoken audiometry test.

CONDITIONS OF THE EAR

➤ **Acute otitis media**

- Sudden infection of the middle ear and if not treated it can lead to chronic otitis media.
- Sign and symptoms.
 - pain, fever and irritation
- Treatment
 - Clean the ear.
 - Use of antibiotics.

Cont.....

➤ **Chronic otitis media**

- Is the recurrent infection of the middle ear that damage the tympanic membrane destroys the ossicles bones of the ear.
- Sign and symptoms
 - Foul smelling discharge from the ear.
 - Enlarged mastoid bone.

Cont.....

➤ Treatment

- Cleaning of the ear.
- Oral antibiotics.
- Surgical repairing for damages ear drum.

CONT.....

➤ **Mastoiditis**

- Bacterial infection of the mastoid bone and it occurs when chronic otitis is not adequately treated and the infection spread from the middle ear to the outer ear.
- Sign and symptoms
 - Abscess may form.
 - Redness of the skin.
 - Pain.
 - Fever
 - Tenderness.

Cont.....

- ❖ if not treated it can lead to deafness, meningitis, sepsis, brain abscess and death.
- Treatment.
 - Antibiotics.
 - Antipyretics.

DEAFNESS

- This is loss of hearing capacity and is greater in men than women.
- Hearing loss is a health issue as people age.
- Hearing screening and treatment should be done every time.
- Many people are exposed on daily basis to noise level that produce high frequency leading to hearing loss.

Cont.....

➤ Sign and symptoms

- Partial or complete loss of hearing.
- Early manifestation like tinnitus rings.
- Increased in ability to hear when in a group.
- Communicating using loud voice And not aware of the surrounding.

Cont.....

- Straining the ear.
- Depression and withdrawal.
- ❖ Most people with hearing impairment do not know that they have hearing loss but the ones they communicate with identify it.

Cont.....

➤ Prevention.

- Avoid noisy environment
- Drug compliance.
- Early screening and treatment.
- With the aging changes which occur to the elderly people should treated to avoid earring loss.

Cont.....

➤ Management

- Early detection and treatment.
- Use of earring aids.
- Speaking to hearing impaired person while looking at the person directly with gestures and sighs.
- Deaf children who needs Special needs should taken to special schools.

CONDITION OF THE NOSE

- Nose is used as a sense of smell and is prone to injuries, nose bleeding, polyps, and sinusitis.
- **Deflected nasal septum**
- Usually the nasal septum is straight but it may bend because of injuries due to birth defects.
- It may require no treatment however it may block the nose making a person to sinusitis.
- It can be repaired surgically

SINUSITIS

- Is an inflammation of the sinuses.
- Causes.
 - Bacteria, fungi, virus.
 - Chronic sinusitis can also be due to tooth infection.
- Signs and symptoms
 - Fever, headache, tenderness, running nose.
- Treatment
 - Treat according to the cause.

RHINITIS(COMMON COLD)

- Is an acute inflammation of the mucus membrane cavity.
- It is usually self limiting and it is highly contagious and the virus is shade 2 days before the symptom appears.
- Most occurs when there is cold since the virus survive when the humidity is low.

Cont.....

- Signs and symptoms.
 - Nasal congestion, sneezing, sour throat general malaise.
- Management.
 - Symptomatic therapy like adequate fluid intake, prevent chilling, warm salty water gargle to sooth the sour throat.
 - Antibiotic to prevent the secondary infection.
 - Antihistamine for inflammation.

Carcinoma of the larynx

- Abnormal growth of the larynx
- Cancer of the larynx is very common and is more in male than female due to smoking
- Signs and symptoms.
- Hoarseness of the voice.
- Dysphagia.
- Enlarged lymph a round the neck.

Cont.....

➤ Diagnosis.

- Biopsy
- Laryngoscope visualization.

➤ Treatment

- Early stages surgery and radio therapy can be done.
- Advanced stage used radiotherapy and chemotherapy.

Post nasal space carcinoma.

- Cancer usually found at the floor of nasal cavity.
- Signs and symptoms.
- Blocked nostril and swelling.
- Treatment
- Chemotherapy and radiation.