Assessment

Potential Nursing Diagnoses

Prior to drug administration:

- Obtain a complete health history including allergies, drug history, and possible drug interactions.
- Obtain a complete physical examination focusing on visual acuity and visual field assessments.
- Assess for the presence or history of ocular pain.

- Injury, Risk for, related to visual acuity deficits
- Self-care, Deficient, related to impaired vision
- Pain, related to disease process

Planning: Client Goals and Expected Outcomes

The client will:

- Exhibit no progression of visual impairment.
- Demonstrate an understanding of the disease process.
- Demonstrate an understanding of the drug’s action by accurately describing drug side effects and precautions.
- Safely function within own environment without injury.
- Report absence of pain.

Implementation

Interventions and (Rationales)

Client Education/Discharge Planning

- Monitor visual acuity, blurred vision, pupillary reactions, extraocular movements, and ocular pain. (Reporting these signs and symptoms is very important to reducing the chances for serious drug-related interactions.)

- Instruct client to report changes in vision, and headache.

- Monitor the client for specific contraindications for the prescribed drug. (Ophthalmic solutions may be contraindicated in many physiological conditions.)

- Instruct client to inform the healthcare provider of all health-related problems and prescribed medications.

- Remove contact lenses before administering ophthalmic solutions. (When contacts are in place, drug is not administered into the eye; therefore, there is no therapeutic effect.)

- Instruct client to remove contact lenses prior to administering eye drops and wait 15 minutes before reinserting them.

- Administer ophthalmic solutions using proper technique. (Improper administration may lead to infection and/or injury to the eye.)

- Instruct client to:
  - Wash hands prior to administering eye drops.
  - Avoid touching the tip of the container to the eye, which may contaminate the solution.
  - Administer the eye drop in the conjunctival sac.
  - Apply pressure over the lacrimal sac for 1 minute.
  - Wait 5 minutes before administering other ophthalmic solutions.
  - Schedule glaucoma medications around daily routines such as waking, mealtimes, and bedtime to lessen the chance of missed doses.

- Monitor for ocular reaction to the drug such as conjunctivitis and lid reactions. (Reactions may result in further damage to the eye.)

- Instruct client to report itching, drainage, ocular pain, or other ocular abnormalities.

- Assess IOP readings. (These are used to determine effectiveness of drug therapy.)

- Instruct client that IOP readings will be taken prior to beginning treatment and periodically during treatment.

- Monitor color of iris and periorbital tissue of treated eye. (Evaluation of eye color assists in determining the effectiveness of the drug therapy and potential adverse reactions.)

- Instruct client that:
  - More brown color may appear in a lighter-colored iris and in the periorbital tissue of the treated eye only.
  - Any pigmentation changes develop over months to years.
  - The eyes may become more bloodshot during the first month of therapy.

- Monitor for systemic absorption of ophthalmic preparations by taking pulse, blood pressure and heart rate. (Ophthalmic drugs for glaucoma can cause serious cardiovascular and respiratory complications if the drug is systemically absorbed.)

- Instruct client to immediately report palpitations, chest pain, shortness of breath, or irregularities in pulse.

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and underlying cardiac and respiratory disorders, and possible drug side effects. Frequently, the person with glaucoma is elderly, so a caregiver will administer the eye drops or gels. Review the proper method for administering eye medications given in Chapter 4. Include the following points when teaching clients about ophthalmic solutions:

- Remove obstacles in the home that may cause falls and accidents secondary to impaired vision.
- Remove contact lenses before instilling drops, and wait at least 15 minutes before reinserting them to allow the medication sufficient contact with the eye.
- Remain still after instilling eye drops until blurred vision diminishes.
- Immediately report eye irritation, conjunctival edema, burning, stinging, redness, blurred vision, pain, irritation, itching, sensation of foreign body in the eye, photophobia, or visual disturbances.
- Report adverse reactions to the medication as well as any possibility of pregnancy.

Mydriatics cause intense photophobia and pain in response to bright light. Mydriatics can worsen glaucoma by impairing aqueous humor outflow and thereby increasing IOP. In addition, strong concentrations of anticholinergics have the potential to affect the central nervous system and cause confusion, unsteadiness, or drowsiness. Cycloplegics cause severe blurred vision and loss of near vision. Scopolamine, an antimuscarinic agent, can cause severe dryness of the eye, causing blurred vision.

### 49.5 Pharmacotherapy for Eye Exams and Minor Eye Conditions

Various drugs are used to enhance diagnostic eye examinations. **Mydriatic drugs** dilate the pupil to allow better assessment of retinal structures. **Cycloplegic drugs** not only dilate the pupil but also paralyze the ciliary muscle and prevent the lens from moving during assessment. Agents used for eye examinations include anticholinergics such as atropine ( Isopto Atropine ) and tropicamide ( Mydricycl ), and sympathomimetics such as phenylephrine ( Mydrin ).