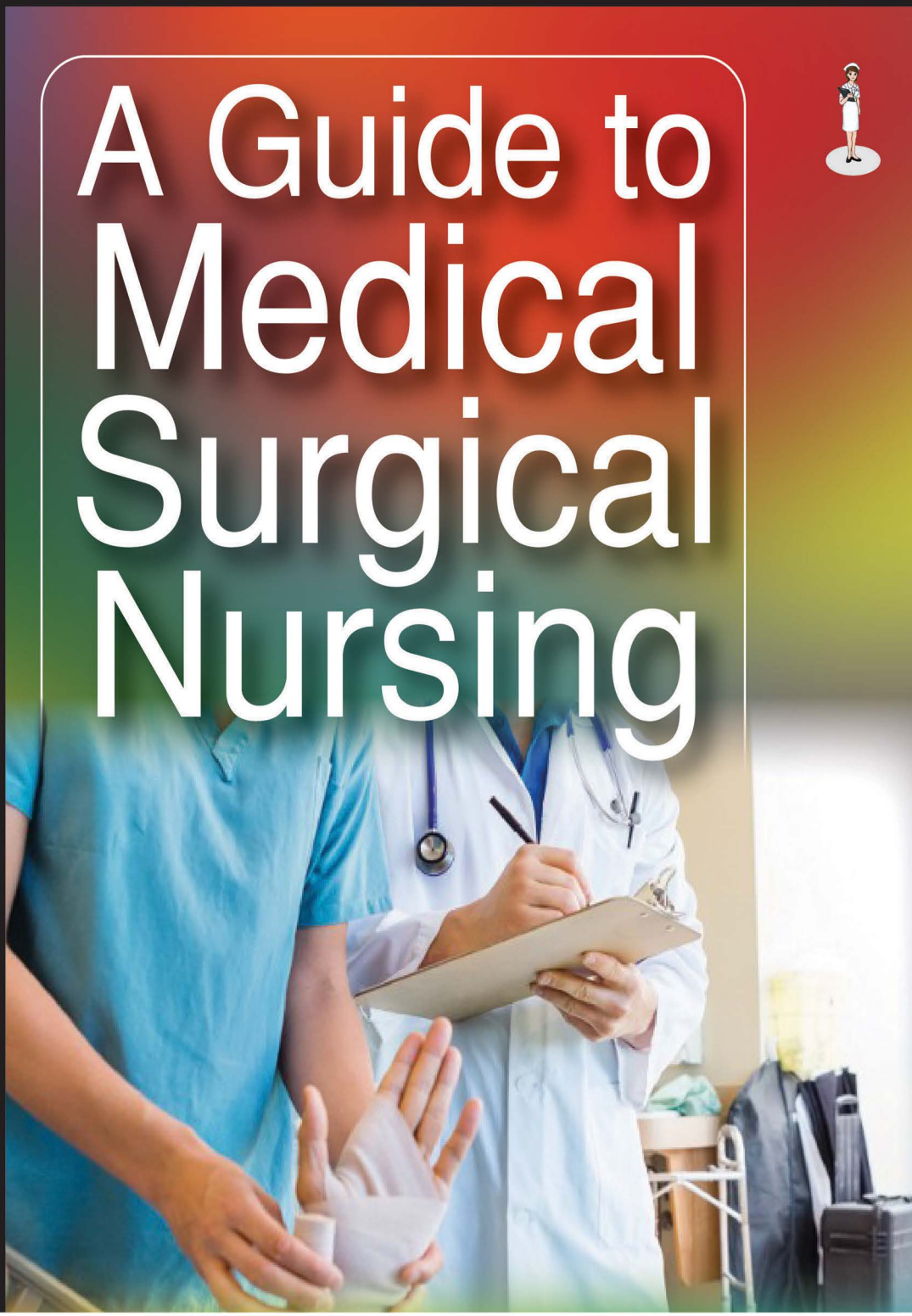
others.com, for detailed information on nursing books, visit our website www.jaypeebrothers.com, for detailed information on nursing boo

NURSING

A Guide to Medical Surgical Nursing



Srinanda Ghosh
Manashi Sengupta

JAYPEE

Contents

Chapter 1. Nursing Management of Patients with Disorders of Neurological System 1

Nursing Assessment of Patients with Neurological Disorders 1
Electrographic Studies 2
Head Injury 2
Nursing Management 5
Guillain-Barré Syndrome (GBS) 7
Nursing Management 9
Planning Outcomes/Goals 10
Deep Vein Thrombosis (DVT) 10
Parkinson's Disease 11
Clinical Manifestations 12
Nursing Management 15
Planning Outcomes/Goals 16
Brain Tumors 17
Management 18
Nursing Management 19
Alzheimer's Disease 20
Nursing Management 22
Nursing Diagnosis 23
Epilepsy 23
Nursing Management 26
Goal/Planning Outcome 27
Cerebrovascular Accident 27
Management 30
Nursing Management 31

Chapter 2. Nursing Management of Patients with Disorders of Eye and Vision 34

Nursing Assessment of Patient with Eye Disorders 34
Glaucoma 36
Nursing Management 39
Planning Outcomes/Goals 39
Cataract 40
Management 41
Planning Outcomes/Goals 42
Retinal Detachment 43
Nursing Management 45
Planning Outcomes/Goals 45
Conjunctivitis 45

Chapter 3. Nursing Management of Patients with Disorders of Ear, Nose and Throat 49

Nursing Assessment of Patient with Ear Disorders 49
Common Ear Infections 50
Pathophysiology 52
Diagnostic Tests 53
Management 53
Surgical Management 54
Nursing Management 54
Planning Outcomes/Goals 54
Deviated Nasal Septum 55
Management 57
Nursing Management 57
Planning Outcomes/Goals 58

Chapter 4. Nursing Management of Patients with Disorders of Respiratory System 59

Assesment of Patients with Disorders of Respiratory System 59
Bronchiectasis 61
Management 62
Pneumonia 63
Nursing Management 66
Goals 66
Asthma 68
Nursing Management 72
Goals 73
Chronic Obstructive Pulmonary Disease (COPD) 74
Nursing Management 78
Goals 79
Pulmonary Tuberculosis 81

Nursing Management 83
Goals 84
Pleural Effusion 85
Lung Cancer 87
Nursing Management 89
Goals 90
Chest Trauma 90
Collaborative Care 91
Specific Chest Injuries 92
Pneumothorax 93
Tension Pneumothorax 94
Hemothorax 95
Cardiac Tamponade 95
Subcutaneous Emphysema 96
Closed Chest Drainage 96

Chapter 5. Nursing Management of Patients with Disorders of Cardiovascular System 99

Nursing Assessment of Patient with Cardiovascular Disorders 99
Rheumatic Fever and Heart Disease 101
Management 102
Nursing Management 103
Nursing Interventions 103
Myocarditis 104
Nursing Management 105
Nursing Interventions 106
Aortic Aneurysm 106
Nursing Management 107
Planning Outcomes/Goals 108
Shock 108
Cardiogenic Shock 110
Management 110
Nursing Management 111
Cardiomyopathy 112
Nursing Management Of Cardiomyopathy 117
Planning Outcomes/Goals 117
Angina Pectoris 118
Nursing Management 120
Myocardial Infarction 121
Thrombolytic Therapy 123
Percutaneous Coronary Interventions 123
Nursing Management 124
Planning Outcomes/Goals 125
Congestive Cardiac Failure 126
Nursing Management 129
Planning Outcomes/Goals 130

Chapter 6. Nursing Management of Patients with Disorders of Hematological System 131

Nursing Assessment of Patient with Hematological Disorders 131
Agranulocytosis 132
Hodgkin's Lymphoma 133
Anemia 134
Nursing Management 139
Planning Outcomes/Goals 139
Polycythemia Vera 140
Nursing Management 142
Leukemia 142
Nursing Management 146
Disseminated Intravascular Coagulopathy (DIC) 147
Nursing Management 151

Chapter 7. Nursing Management of Patients with Disorders of Gastrointestinal System 153

Assessment of Patients with Disorders of Gastrointestinal System 153
Oral Cancer 154
Nursing Management 156
Achalasia 159
Nursing Management 160
Goals 160
Gastroesophageal Reflux Disease 161
Nursing Management 164
Goals 164
Hiatal Hernia 165
Cancer of the Esophagus 168
Nursing Management 170
Nursing Management of the Patient Scheduled for Surgery 171
Goals 171
Gastritis 172
Nursing Management 174
Goals 174
Peptic Ulcer Disease 175
Nursing Management 179

Goals 179
Nursing Management of Patients Undergoing Surgery for Peptic Ulcer Disease 182
Goals 182
Goals 183
Gastric Cancer 184
Goals 186
Gastroenteritis 187
Nursing Management 188
Goals 189
Intestinal Obstruction 190
Nursing Management 193
Goals 193
Hernia 194
Nursing Management 196
Inflammatory Bowel Disease 197
Nursing Management 200
Goals 201
Peritonitis 203
Nursing Management 205
Goals 205
Colorectal Cancer 206
Nursing Management 210
Appendicitis 213
Nursing Management 214
Hemorrhoids 215
Viral Hepatitis 218
Nursing Management 222
Goals 222
Cirrhosis 224
Nursing Management 229
Goals 229
Acute Pancreatitis 231
Nursing Management 234
Chronic Pancreatitis 237
Nursing Management 239
Cholecystitis 239
Cholelithiasis (Gallstones) 241
Nursing Management of Patients Undergoing Medical Treatment 244
Goals 244
Nursing Management of Patients Undergoing Surgical Treatment 245
Goals 246
Goals 247

Chapter 8. Nursing Management of Patients with Disorders of Urinary System 249

Assessment of Patients with Disorders of Urinary System 249
Urinary Tract Infection 251
Lower Urinary Tract Infections 252
Upper Urinary Tract Infections 253
Nursing Management 255
Goals 255
Acute Glomerulonephritis 256
Nursing Management 258
Goals 258
Acute Renal Failure 259
Nursing Management 262
Goals 263
Chronic Renal Failure 264
Nursing Management 267
Goals 267
Dialysis 269
Nursing Management 272
Urinary Calculi 273
Nursing Management 277
Goals 277

Chapter 9. Nursing Management of Patients with Disorders of Endocrine System 280

Nursing Assessment of Patient with Endocrine Disorders 280
Diabetes Mellitus 282
Nursing Management 287
Planning Outcomes/Goals 288
Pituitary Disorders 289
Hypothyroidism 293
Nursing Management 294
Hyperthyroidism 295
Diagnostic Tests 296
Nursing Management 298

Chapter 10. Nursing Management of Patients with Disorders of Reproductive System 299

Nursing Assessment of Patients with Reproductive Disorders 299
Perimenopause and Menopause 300

Nursing Management 302
Disorders of Menstrual Cycle 303
Nursing Management 304
Abnormal Uterine/Vaginal Bleeding 306
Nursing Management 308
Infertility 309
Nursing Management 311
Abortion 311
Threatened Abortion 311
Inevitable Abortion 312
Complete Abortion 312
Incomplete Abortion 313
Missed Abortion 313
Recurrent Abortion (Habitual) 314
Septic Abortion 314
Induced Abortion (Elective Abortion) 315
Nursing Management 316
Pelvic Inflammatory Disease 316
Nursing Management 318
Goals 318
Endometriosis 319
Nursing Management 321
Goals 322
Benign Tumors of the Female Reproductive System 322
Nursing Management 324
Benign Ovarian Tumors 324
Nursing Management 326
Pelvic Organ Prolapse 326
Nursing Management of Surgical Patient 328
Malignant Tumors of the Female Reproductive System 329
Ovarian Cancer 332
Nursing Management of Patients With Cancers of the Female Reproductive System 334
Nursing Interventions of Patients Undergoing Surgery 334
Nursing Management of Patient Undergoing Radiation Therapy 335
Hysterectomy 336
Nursing Management 338
Goals 338
Benign Prostatic Hyperplasia (BPH) 340
Nursing Management of the Medical Patient 343
Goals 344
Nursing Management of the Patient Undergoing Prostate Surgery 345
Prostate Cancer 347
Nursing Management of Patient Undergoing Radical Prostatectomy 351
Goals 351

Chapter 11. Nursing Management of Patients with Disorders of Breast 353

Assessment of Breast Disorders 353
Benign Conditions of Breast 354
Breast Cancer 357
Nursing Management of Patient Undergoing Lumpectomy and Mastectomy (Preoperative Care) 362

Chapter 12. Oncological Nursing: Nursing Management of Patients with Cancer 366

Oncological Nursing 366
Pathophysiology of Malignant Process 367
Prevention and Screening of Cancer 371
Management of Cancer 373
Radiation Therapy 376
Cancer Chemotherapy 378
Biologic and Targeted Therapy 385
Oncological Emergencies 388

Chapter 13. Nursing Management of Patients with Skin Disorders 391

Assessment of Patient with Skin Disorders 391
Skin Lesions 392
Infectious Disorders of Skin 393
Allergic Skin Problems 400
Noninfectious Inflammatory Disease of Skin 400

Nursing Management of Patients with Burns 403
Complications of Burns 414
Nursing Management 415
Acute/Intermediate Phase 419
Rehabilitation Phase 421

Chapter 14. Nursing Management of Patients with Disorders of Musculoskeletal System 424

Nursing Assessment of Patient with Musculoskeletal Disorders 424
Fractures 425
Nursing Management 431
Planning Outcomes/Goals 432
Osteomyelitis 433
Nursing Management 435
Planning Outcomes/Goal 436
Osteomalacia 436
Nursing Management of Patient with Amputation 437
Nursing Management 439
Planning Outcomes/Goals 440

Index ***443***

3

Nursing Management of Patients with Disorders of Ear, Nose and Throat

JAYPEE BROTHERS

NURSING ASSESSMENT OF PATIENT WITH EAR DISORDERS

Subjective Data

- Otologic history includes demographic data, current clinical manifestations, past history, family history, and psychological history.
- Demographic data relevant to otologic assessment includes the client's age. Hearing impairment may occur as consequences of the aging process.
- Current health history: Communication skills, reduction in physical, functional and social activities leading to isolation and depression. Hearing loss resulting in feelings of frustration, embarrassment and loneliness.
- Chief complaints: Nausea or vomiting, pain hearing loss, vertigo, tinnitus, drainage, infection.
- Past medical and surgical history: History of common childhood diseases—Complications of ear infections—Chronic otitis media, frequent upper respiratory tract infections, acute and chronic sinus infections. Any history of mastoidecomy,tympanolasty, stapedectomy.
- Allergies—Resulting in nasal stiffness and congestion.
- Medications: Damage the vestibulocochlear nerve (eight cranial nerve) with resulting hearing loss, tinnitus or disturbances in equilibrium. Aspirin is a common cause of tinnitus. Other drugs include aminoglycosides, analgesics, salicylates, quinine, chemotherapeutic agents and antiprotozoal agents.

Objective Data

- **External ear and canal**: Inspect and palpate the external ear. Auricle, periauricular area, and mastoid area are observed for symmetry of ears, color of skin, nodules, swellings, redness and lesions. The auricle and mastoid areas are then palpated for tenderness and nodules. Assess for sebaceous cyst, behind ears, tophi, impacted cerumen, discharge in canal, swellings of pinna, pain, scalingor lesions, enotosis.
- **External auditory canal and tympanum**: Inspect the canal opening for patency, palpate the tragus, and gently move the auricle to check for discomfort. Look for retracted eardrum (blockage of eustachian tube).Bulging red or blue eardrum, lack of landmark

(middle ear filled with fluid) and blood, pus. Perfortion of eardrum is present in chronic otitis media, mastoiditis.
- Observe the tympanic membrane for color, landmarks, contour and intactness. It is pearl gray, white or pink, shiny and translucent.
- Observe the ear canal for size, shape, color, amount and type of cerumen.

Diagnostic Studies

Tests for hearing acuity

1. Whispered and spoken voice provides gross screening information about the patient's ability to hear.
2. Tuning fork tests helps in differentiating conductive and sensorineural hearing loss. Tuning fork of 512 Hz is used for this test. Commonly used tets are Rinne test and Weber test.
   – Rinne test: It is positive when the patient reports that air conduction (AC) is heard longer than bone conduction (BC). It indicates normal hearing or sensorineural loss. If the patient hears the tuning fork better by bone conduction, the Rinne test is negative and indicates that a conductive hearing loss is present.
   – Weber test: An actual tuning fork is placed on the midline of the skull, the forehead or the teeth. If a patient has a conductive hearing loss in one ear, sound is heard louder in that ear. If a sensorineural loss is present, sound is louder in the unaffected ear.

   Results of tuning fork tests are subjective.
3. Audiometry is useful as a screening test for hearing acuity and as diagnostic tests for determining the degree and type for determining the degree and type of hearing loss. Audiometer procedure puretones at varying initiatives to which the patient can respond.
   – Screening audiometry is the testing of large numbers of persons with a fast, simple test to detect possible hearing problems.
   – Pure tone audiometry: A puretone audiometer produces pure tones at varied frequencies and intensities and is performed by an audiologists. Purpose is to determine the hearing range of the patient in terms of decibels and hertz.
4. Test for structure—
   – X-ray of the temporal bone, mastoid bone is done to rule out any structural abnormality.
   – CT scan and MRI is done to rule out any tumor of the temporal bone.
   – Arteriography is used to assess vascular abnormalities in the temporal bone.
5. Laboratory tests—
   – Complete blood count is necessary to assess any acute ear infections.
   – Ear drainage culture is done to identify an infecting organism.
   – Tests for presence of cerebrospinal fluid in the ear can rule out meningitis.
   – Biopsy of the abnormal tissue in the ear canal is done to rule out a malignancy or to identify unusual problems.

COMMON EAR INFECTIONS

Children are the vulnerable group for ear infections. Infections may be viral or bacterial. Different types of ear infection may be listed down as:

1. Otitis externa:
   – Bacterial infection.
   – Viral infections mainly from herpes simplex, herpes zoster, bullous myringitis.
   – Fungal otomycosis.
2. Tympanic membrane infections.

JAYPEE BROTHERS

3. Otitis media
   – Acute suppurative otitis media
   – Chronic suppurative otitis media.
4. Mastoiditis.
5. Chlolesteatoma.

Otitis Externa

It primarily occurs in the external auditory canal or may be a manifestations of a generalized skin condition. It may be viral or fungal.

Bacterial infection

Etiology
- Genetic factors like narrow canal inherent tendency to eczema, excessive wax formation.
- Traumatic factors like match stick.
- Environmental factors heat, humidity, swimming, etc.

Viral infection

Etiology
Herpes Simplex occurs most commonly on the lips, however may be occasionally found involving external canal. The eruption consists of a crop of small vesicles, which dries up after a few days.

Herpes zoster involving the geniculate ganglion may give rise to skin lesions, with or without involvement of VII cranial nerve. The blister adherent crust which persist for a week.

Fungal infections

Fungal infection or otomycosis is quite a common cause of otitis externa in the tropical climate regions.

Etiology
- Humidity occurs due to water entering the ear as a result of swimming or during bath.
- Infections: *Candida albicans* and *Aspergillus niger* can cause.
- Antibiotic ear drops used over a long period lead to destruction of normally present bacteria resulting in growth of fungus.

Clinical manifestations

- Pain.
- Discharge from ear.
- Deafness.
- Itching.
- External canal appears congested edematous.
- Trismus.
- Tinnitus.

Tympanic Membrane Infections

Infections of the external ear canal can involve the surface of tympanic membrane. The infections of tympanic membrane are:

Tympanosclerosis

It is the result of repeated infection and trauma to the tympanic membrane. It consists of a deposit of collagen and calcium within middle ear that can harden around ossicles, causing a conductive hearing loss.

Bullous myringitis

It is characterized by formation of blebson in the tympanic membrane and the deep meatal skin. The color of blebs is purplish due to hemorrhagic effusion filling the vesicles.

Etiology—Above infections are mainly caused by:
- Bacterium *mycoplasma pneumoniae*.

Clinical manifestations—Holes or perforations of tympanic membrane can be caused by infections and accompanied by drainage.

JAYPEE BROTHERS

Otitis Media

Otitis media is the most prevalent disorders of the middle ear. It is most common in children but does occur in adults.

Acute suppurative otitis media (ASOM)

When an infection is sudden in onset and short in duration, the diagnosis is acute suppurative otitis media.

Etiology—Organism like streptococcus, staphylococcus causes the infection. Disease condition like nasopharyngitis, rhinitis, sinusitis. Previous trauma or tympanotomy. The disease is rarely by blood-borne.

Chronic suppurative otitis media. (CSOM)

When an infection is repeated, usually causing drainage and perforation, then it is called chronic suppurative otitis media.

Etiology—Organisms like *Pseudomonas*, *Staphylococcus*, and *Klebsiella* are responsible for CSOM. Residue of an ASOM infection during childhood. Repeated infection from eustachian tube. Large size traumatic perforation.

Clinical manifestations

- Discharge is mucoid, copius, and non-foul smelling.
- Deafness.
- Ear ache.
- Fever.
- Radiography of mastoid shows cloudiness of aircells.
- Necrosis of bone covering facial nerve.

Mastoiditis

The mastoid system is a series of air cells contained within the temporal bone that communicate with middle ear.

Etiology

It results from an ASOM when there is lowered resistance in the patients. Virulence of organism is great. Drainage via Eustachian tube is poor. Improper inadequate antibiotics given.

Clinical manifestations

- Pain occurs again, as was present with acute otitis media.
- Ear discharge would increase in quantity.
- Tenderness is elicited over the mastoid antrum area.
- Sagging of the posterior superior bony canal wall.

Cholesteatoma

Cholesteatoma is a three dimensional epidermal and connective tissue structure, usually in the form of sac and frequently confirming to the architecture of various spaces of middle ear and mastoid.

Etiology

- CSOM
- Marginal perforation of the tympanic membrane.

Clinical manifestations

- Ear discharge is scanty, foul smelling and sometimes blood stained.
- Deafness may be unnoticed if a portion of the cholesteotoma may bridge gap in the ossicular chain.
- Erosion of surrounding structures leading to other problem like brain abscess, vertigo, etc.

PATHOPHYSIOLOGY

Otalgia or ear pain related to a problem in the ear is usually the result of an inflammatory process that can be caused by trauma or infection.

JAYPEE BROTHERS

Inflammation causes chemical mediators to be released into the tissues and the chemotaxis of leukocytes to the damaged areas, resulting in tissues edema, pain, heat and redness.

This inflammatory process results in swelling of tissues that impinges on nerve ending and surrounding areas, causing otalgia.

Sometimes infection may erode into tissue and bone as in cholesteatoma and causes further inflammation and pain.

- Etiological factors
- Chemical mediators are released and inflammation occurs
- Resulting in tissue edema, pain, heat and redness
- Inflammatory process results in swelling of tissues
- That swelling impinges on nerve endings and surrounding areas
- Causing the otalgia or ear pain
- Masses such as tumors grow and press on nearby tissues and nerves
- Causing pain, discharge and other complication like deafness.

DIAGNOSTIC TESTS

Otitis Externa

Laboratory studies

Gram staining and culture of canal discharge is occasionally helpful, particularly in fungal infection.

Imaging studies

To look for sign of a bone infection next to ear canal, the CT scan of head, MRI and radionuclide scan may be performed.

Otitis Media

Laboratory studies

Culture and sensitivity of a specimen from a fresh perforation or a tympanocentesis.

Imaging studies

CT scan, MRI to detect intracranial complications.

Audiometry

For checking conductive hearing loss the test is done.

Tympanometry

It is helpful to identify presence or absence if middle ear effusion is present.

Mastoiditis

- The early diagnosis of mastoiditis is clinical based on medical history and physical examination.
- Complete blood count with differential, blood cultures, tympanocentesis, Gram stain , acid-fast staining is done.
- Audiography for assessing hearing loss.
- CT scan for showing fluid collection in middle ear and mastoid region, abscess formation, etc.

MANAGEMENT

Medical Management

Goals

- Promote healing
- Alleviate pain
- Restore normal function of ears.

Promote healing

- Ear irrigation: Ear is commonly irrigated to cleanse the external auditory canal or to remove debris, impacted wax, or foreign body. Periodic suctioning of ear canal helps to keep open, remove debris, and decrease bacterial counts.
- Antibiotics: Antibiotic ear drop to reduce infection.
- Corticosteroid: Hydrocortisone ear drops for few weeks.

JAYPEE BROTHERS

- Antifungal agents: Nystatin ear drop is used to treat fungal infection.
- Burrow's solution or topical corticosteroid cream or lotions are also given.

Alleviate Pain—Analgesics are used to reduce pain, e.g. Acetaminophen, NSAIDs, opiods, ibuprofen.

SURGICAL MANAGEMENT

Myringotomy

A small incision is made in eardrum to allow fluid to drain and keep the eardrum from rupturing.

Myringoplasty

It is an operation specifically designed to close tympanic membrane defects with use of operating microsepsis.

Tympanoplasty

The purpose of tympanoplasty is to repair the perforated eardrum and sometimes the middle ear bones that consist of incus, malleus and stapes.

Ossiculoplasty

It is the surgical reconstruction of middle ear bone to restore hearing. Prosthetic made of materials such as teflon, stainless steel are used to reconnect the ossicles.

Mastoidectomy

It involves incision, drainage of surgical repair of the mastoid process.

NURSING MANAGEMENT

Nursing Assessment

Subjective data

When obtaining the history of the pain, ask the patient about, what events have triggered, the ear pain, paying special attention to a recent history of the following:

- Upper respiratory tract infection
- Travel by airplane
- Exposure to loud noise.

Objective data

Pain, discharge from ear, deafness, itching, external canal appears congested edematous, trismus, tinnitus, earache, fever, radiography of mastoid shows cloudiness of air cells, necrosis of bone covering facial nerve.

Nursing Diagnoses

- Risk for infection related to tissue destruction.
- Acute pain related to inflammation in the externa or middle ear or from referred pain in head and neck area.
- Disturbed perception (auditory) related to infection, discharge.
- Knowledge deficit related to the disease condition.
- Impaired verbal communication related to auditory impairment secondary to infection in ear.

PLANNING OUTCOMES/GOALS

- Minimize risk of infection
- Minimize pain
- Improve in auditory perception
- Increase knowledge level
- Improve verbal communication.

Nursing Interventions

Minimize risk of infection

- Monitor for redness swelling, pain as signs of infection.
- Administer antibiotics or other medications like antihistamines, decongestants, etc. steroid nasal spray
- Do ear irrigation.

JAYPEE BROTHERS

- Teach the client to continue the prescribed doses.

Minimize pain

- Assess pain-by-pain rating scale.
- Give comfort using anesthetic ear solutions or systemic analgesics.
- Apply heat by warm compress.
- Give proper position.
- Provide soft diet and quiet environment.

Improve auditory perception

- Assess the client for the level of hearing loss.
- Administer antibiotics for decreasing infections.

Increase knowledge level

- Assess the knowledge level of the client regarding the disease process.
- Describe about the pathophysiology and clinical manifestation of the disease condition.
- Describe the reason behind each treatment approaches.
- Clarify patients doubt.

Improve verbal communication

- Assess the ability of the patient to communicate.
- Use nonverbal communication.
- Use communication board.
- Encourage him to talk.
- Advice the patient for rehabilitation.
- Provide hearing aids.

DEVIATED NASAL SEPTUM

Definition

A deviated nasal septum is a condition when there is a shift from the midline on center position (Fig. 3.1).

- It refers to the deformity of the partition of the nose that separates the two nostrils.

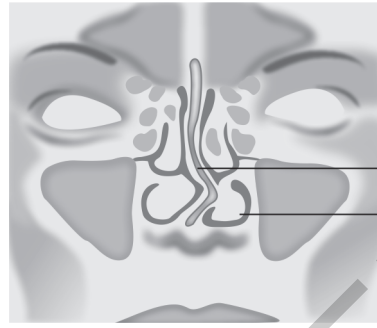


Fig. 3.1: Deviated nasal septum

- It occurs when the thin wall (Nasal septum) inside the nose is displaced to one side.
- In deviated nasal septum (DNS) the top of the cartilaginous ridge leans to the left or right causing obstruction of the affected nasal passage. It changes the velocity of the air altering normal nasal activities and resulting in dryness, crusting, nasal bleeding, and changes in the membranous lining of the nose.

Etiology

- Trauma to the nose commonly occurs during contact sports, active play on rough houses automobile accidents.
- Congenital disorder: Approximately 5% are birth defects or congenital disorder caused by compression of the nose during childbirth.

Pathophysiology

Deformity of the nasal septum may be classified into:

- Spur
- Deviation
- Dislocation.

Spur

These are sharp angulations seen in the nasal septum occurring at the junction of

JAYPEE BROTHERS

the vomer below with the septal cartilage and on ethmoid bone above.

Deviations

These are characterized by a more generalized bulge. They may be 'C' shaped and 'S' shaped and usually involve both cartilage and bone.

Cartilaginous deviations—In these patients' upper bony septum and the bony pyramid are central, but there is a dislocation or deviation of the cartilaginous septum and vault.

The C-deviation—There is displacement of the upper bony septum and the pyramid to one side and the whole of the cartilaginous septum and vault to the opposite side.

The S-deviation—The deviation of the middle-third is opposite to that of the upper and lower-thirds. With deviation of the nose, the dominant factor is the position of the nasal septum, hence the edge as straighten the septum and if this objective is not achieved, there is no hope of successful straightening of the external pyramid

Thickened septum—It may be congenital or trauma: Cottle has classified septal deviations:

- Simple deviation: There is a mild deviation of nasal septum, there is no nasal obstruction. This is a commonest condition encountered. It needs no treatment.
- Obstruction: There is more severe deviation of the nasal septum, which may touch the lateral wall of the nose, but no vasoconstriction the turbinates shrink away from the septum. Hence, surgery is not indicated even in these cases.
- Impaction: There is marked angulations of the septum with a spur which lies in contact with lateral nasal wall. The space is not increased even on vasoconstriction. Surgery is indicated for these patients.

Dislocations

In this the lower border of the septal cartilages displaced from its medial position and projects into one of the nostril.

Clinical Manifestations

The most common symptom of a deviated septum is nasal congestion, with one side of the nose being more congested than the other, along with difficulty breathing. Recurrent or repeated sinus infections can also be a sign of a deviated septum. Other symptoms include frequent:

- Nosebleeds
- Facial pain
- Headache
- Postnasal drip
- Loud breathing and snoring during sleep.

A deviated septum may also cause sleep apnea, a serious condition in which a person stops breathing during sleep.

Diagnostic Tests

- During a physical examination ask the patient about the symptoms — such as nosebleeds or nasal congestion — and ask whether he had any trauma to nose.
- Using a bright light and an instrument (nasal speculum) designed to spread open the nostrils; examine the inside of the nose. Based on this exam, the physician should be able to diagnose deviated septum and determine the seriousness of the condition.

Complications

Immediate after surgical intervention

- Hemorrhage

JAYPEE BROTHERS

- Tear of flaps
- CSF rhinorrhea.

Delayed

- Hemorrhage
- Septal hematoma
- Septal abscess
- Septal perforation
- Adhesions.

Late

- Atrophic rhinitis
- Columellar retraction
- Flappy septum.

Others

- Facial pain
- Chronic sinus infection
- Postnasal drip or nasal congestion.

MANAGEMENT

Medical Management

Managing symptoms

Initial treatment of deviated septum may be directed at managing the symptoms of the condition, such as nasal congestion and postnasal drip.

- Decongestants: Decongestants are medications that reduce nasal congestion, helping to keep the airways on both sides of the nose open. Decongestants are available as a pill or as a nasal spray. Use nasal sprays with caution, however, frequent use can create dependency and cause symptoms to be worse (rebound).
- Antihistamines: Antihistamines are medications that help prevent many cold and allergy symptoms, including runny nose.
- Nasal steroid sprays: Prescription nasal corticosteroid sprays can reduce inflammation in the nasal passage and help prevent a runny nose.
- Analgesics: To reduce pain, relieve headache.
- Antibiotics: to eliminate a suspected infection.

Surgical Management

Corrective surgeries are used when the deviation is more severe and obstructs breathing and for more persistent, trouble some symptoms.

Septal surgeries are required for symptomatic deviation.

The surgeries are

- Septal reconstruction
- Rhinoplasty.

Surgical repair (septoplasty)—Septoplasty is the usual way to repair a deviated septum. During septoplasty, the nasal septum is repositioned in the center of your nose. This may require the surgeon to cut and remove parts of the septum before reinserting it in the proper position.

Reshaping the nose—In some cases, surgery to reshape the nose (rhinoplasty) is performed at the same time as septoplasty. Rhinoplasty involves readjusting the bone and cartilage of the nose to change its shape or size or both.

NURSING MANAGEMENT

Nursing Assessment

Subjective data

History of nosebleeds, facial pain, headache, drip, loud breathing and snoring during sleep.

JAYPEE BROTHERS

Objective data

Assess for repeated sinus infections, nasal congestion, difficulty breathing.

Nursing Diagnoses

- Acute pain related to surgical procedure as evidenced by patient's facial expression, verbal report and through pain scale measurement.
- Activity intolerance related to pain, discomfort as evidenced by inability to perform activities of daily living, weakness and fatigue.
- Knowledge deficit related to awareness and prevention of complications.

PLANNING OUTCOMES/GOALS

- Minimize pain
- Improve activities of daily living
- Improve knowledge regarding awareness and prevention of complications.

Nursing Interventions

Minimize pain

- Assess the duration, intensity and radiation of pain through pain scale.
- Place the patient in a comfortable position.
- Check the surgical site for any excessive bleeding or drainage.
- Provide a noise-free environment to the patient.
- Administer analgesics as ordered.

Improve activities of daily living

- Assess the level of activity the patient can perform by himself.
- Allow the patient to perform brushing, combing, feeding once condition is stable.
- Plan activity and rest period.
- Provide a well-balanced diet when allowed after surgery.

Improve knowledge regarding awareness and prevention of complications

- Assess the knowledge and understanding regarding the disease condition.
- Explain the causative factors in details.
- Educate the patient regarding surgical procedure and its prognosis.
- Explain the patient about the prevention of complications.

JAYPEE BROTHERS

for detailed information on nursing books, visit our website **www.jaypeebrothers.com,** for detailed information on nursing books, visit our

A Guide to
Medical Surgical Nursing

Salient Features

- Easy and student-friendly presentation of the subject
- Provides in-depth information about system-wise medical and surgical disorders
- Covers essential subject matter as per INC syllabus for BSc Nursing and Post Basic BSc Nursing students
- Nursing process is incorporated in detail in each chapter
- Bulleted list, tables, and flow charts are used to help students to find information easily and quickly
- A single comprehensive guide to help the students to prepare for their examination.

Srinanda Ghosh MN is Principal of Woodlands College of Nursing, Kolkata, West Bengal, India. She obtained her Master's in Nursing degree from RAK College of Nursing, New Delhi, India.



She has 3 years of clinical experience and has been teaching BSc (N), PB BSc (N) and MSc (N) students for the last 40 years. She functions regularly as external and internal examiner, paper setter and moderator of Calcutta University, Kolkata, West Bengal, Gauhati University, Guwahati, Assam and The West Bengal University of Health Sciences, Kolkata. She has also contributed as a course writer for the IGNOU diploma program in critical care nursing. She is the author of the book *MCQs in Medical Surgical Nursing (With Explanatory Answers)*, which is very popular among nurses appearing in MSc (Nursing) entrance and other competitive examinations.

Manashi Sengupta MSc (Nursing) is Professor, Sankar Madhab College of Nursing, Guwahati, Assam, India. She is Master's in Nursing (Cardiovascular and Thoracic specialty) from BM Birla College of Nursing under The West Bengal University of Health Sciences, Kolkata, West Bengal, India.



She has 4 years of clinical experience and has been teaching BSc (N), PB BSc (N) and MSc (N) students for the last 12 years. She performs as external and internal examiner and also as paper setter for Mizoram University, Mizoram, The West Bengal University of Health Sciences, Kolkata, SSUHS (Srimanta Sankaradeva University of Health Sciences), Guwahati, Assam, and Nagaland University, Nagaland. She has contributed as a course writer for the IGNOU diploma program in critical care nursing. She has published various research articles in national and international journals.

Available at all medical bookstores
or buy online at www.jaypeebrothers.com

JAYPEE BROTHERS
Medical Publishers (P) Ltd.
www.jaypeebrothers.com

Join us on facebook.com/JaypeeMedicalPublishers

ISBN 978-93-86150-56-1