

SUBJECT : GENERAL MEDICINE

SYSTEM : SYSTEMIC DISEASES

TOPICS : HYPERTENSION DOWNLOADABLE NOTES

Hypertension in Dentistry - Easy Notes

1. What is Hypertension?

- High blood pressure condition
- Silent disease - often no symptoms
- Major risk factor for heart disease and stroke
- Common in dental patients

2. Blood Pressure Classifications

Category	Systolic (top)	Diastolic (bottom)
Normal	<120 mmHg	and <80 mmHg
Elevated	120-129 mmHg	and <80 mmHg
Stage 1	130-139 mmHg	or 80-89 mmHg
Stage 2	≥140 mmHg	or ≥90 mmHg
Hypertensive Crisis	>180 mmHg	and/or >120 mmHg

3. Common Antihypertensive Medications

Beta Blockers

- Examples: Atenolol, Metoprolol
- End in "olol"

- Can cause slow heart rate, fatigue

ACE Inhibitors

- Examples: Lisinopril, Enalapril
- End in "pril"
- Can cause dry cough, taste changes

Calcium Channel Blockers

- Examples: Amlodipine, Nifedipine
- Can cause gum overgrowth, swollen ankles

Diuretics

- Examples: Hydrochlorothiazide, Furosemide
- Can cause dry mouth, frequent urination

4. Dental Implications

Oral Side Effects of Medications

- **Dry mouth** (increased cavities risk)
- **Gum overgrowth** (especially with calcium channel blockers)
- **Altered taste**
- **Lichenoid reactions** (mouth sores)

Treatment Considerations

- Monitor blood pressure at every visit
- Limit epinephrine use
- Short, stress-free appointments
- Morning appointments often better

5. Dental Management Guidelines

When to Proceed with Treatment

- BP < 180/110 mmHg - safe for routine care
- Well-controlled on medication
- Patient feels well
- Recent medical follow-up

When to Postpone Treatment

- BP > 180/110 mmHg
- Patient has symptoms (headache, chest pain)
- Recent medication changes
- Poorly controlled hypertension

6. Local Anesthesia Considerations

Epinephrine Use

- Generally safe in controlled hypertension
- Use minimal effective dose
- Maximum: 0.04 mg for cardiac patients
- That's about 2 cartridges of 1:100,000 concentration

Alternative Anesthetics

- Mepivacaine (no epinephrine)
- Prilocaine (low vasoconstrictor content)
- Articaine (can use lower concentrations)

7. Emergency Management

Hypertensive Urgency

- BP > 180/120 mmHg

- No organ damage symptoms
- **Action:** Stop treatment, keep patient calm, refer to physician

Hypertensive Emergency

- BP > 180/120 mmHg
- WITH symptoms: chest pain, shortness of breath, severe headache
- **Action:** Medical emergency - call ambulance

8. Clinical Case Scenarios

Case 1: Routine Check-up

- **Patient:** 60-year-old with controlled hypertension
- **BP Reading:** 138/88 mmHg
- **Action:** Proceed with treatment, limit epinephrine
- **Special Notes:** Monitor for dry mouth, gum changes

Case 2: Elevated Reading

- **Patient:** 45-year-old, new patient
- **BP Reading:** 168/102 mmHg
- **Action:** Postpone elective treatment, refer to physician
- **Special Notes:** Recheck in 15 minutes, if still high - reschedule

Case 3: Emergency Care Needed

- **Patient:** 55-year-old with toothache, high BP
- **BP Reading:** 182/114 mmHg
- **Action:** Provide emergency pain relief only, medical referral
- **Special Notes:** Use anesthesia without epinephrine

9. Drug Interactions to Know

NSAIDs (Ibuprofen, Naproxen)

- Can reduce effectiveness of BP medications
- May increase blood pressure
- Use acetaminophen for pain when possible

Epinephrine

- Can temporarily increase BP and heart rate
- Use caution in uncontrolled hypertension
- Aspirate to avoid intravenous injection

10. Patient Education Points

Oral Health

- Special attention to dry mouth care
- Regular monitoring for gum overgrowth
- Frequent recall appointments
- Gentle brushing if gums are enlarged

Lifestyle Factors

- Stress reduction techniques
- Regular medical follow-up
- Medication compliance
- Salt restriction, healthy diet

11. Key Practice Points

Do

- Take BP at every examination
- Update medication list regularly

- Consult physician if unsure
- Use stress-reduction protocols
- Have emergency plan ready

Don't

- Ignore high BP readings
- Use excessive vasoconstrictors
- Prescribe NSAIDs routinely
- Treat without current medical history
- Overlook oral side effects

12. Special Considerations

Gingival Overgrowth Management

- Meticulous oral hygiene
- More frequent cleanings
- Possible gum surgery if severe
- Medication change may be needed

Stress Reduction Techniques

- Morning appointments
- Short treatment sessions
- Calm environment
- Pre-medication if needed (physician consult)

Remember: Most hypertensive patients can receive dental care safely with proper precautions. Good communication with the physician is essential.