

Dental Management of Patient with Hypertension



Overview

Many people suffer from hypertension (high blood pressure)

Obesity, sedentary lifestyle, high fat intake, high sodium intake, and smoking, are all risk factors for hypertension

In arabic countries, nearly 29.5% of population suffer from hypertension

Hypertension Classification

Normal blood pressure	120/80 mmHg
Pre-hypertension (At risk of developing hypertension)	< 140/90 mmHg
Hypertension Stage I	< 160/100 mmHg
Hypertension Stage II	< 180/110 mmHg
Uncontrolled Hypertension	= 180/110 mmHg or higher

Recommendation

- Dental Treatment can be provided for all patient with hypertension except uncontrolled hypertensive patient (180/110 mmHg or higher)
- Stage II Hypertensive patient (160/100 mmHg) require blood pressure monitoring during dental procedure, and treatment should be stopped immediately if blood pressure reaches 180/110 mmHg

Drugs used by hypertensive patient

Most common drugs used by hypertensive patients are:

- Thiazide diuretics (-iazide)

(Chlorothiazide, polythiazide, indapamide, metolazone)

- Angiotensin-converting enzyme inhibitors (-pril)

(Benazepril, captopril, lisinopril, ramipril)

- Angiotensin receptor blockers (-artan)

(Candesartan, eprosartan, valsartan)

Drugs used by hypertensive patient

■ Beta Blockers (-olol)

(Propranolol, Timolol, Nadolol, Metoprolol)

■ Calcium channel blockers (-ipine)

(Amlodipine, felodipine, Diltiazem, Verapamil)

Drugs Side Effects

Some hypertension drugs cause:

- Dry mouth
- Taste change
- Lechinoid reaction
- Orthostatic hypotension
- Calcium channel blockers cause : gingival hyperplasia

Dental Management

- **Antibiotics** : Patient taking calcium channel blockers should not given erythromycin / clarithromycin (azithromycin is OK)
- **Analgesics**: Avoid long-term use of NSAIDs (more than 2 Weeks) becuae it interfere with action of the drug
- **Anesthesia**: It is not recommended to use more than 2 anesthetic carpules (with 1:100,000 epinephrine). More carpules may cause elevation of blood pressure
- **Anxiety**: Anti-anxiety drugs can be used, however, dose should be minimized for such patients (hypotension)

Dental Management

- Patients with blood pressure less than 180/110 can receive any dental treatment (but patient blood pressure should be monitored during treatment if blood pressure > 160/100)
- Patient with uncontrolled blood pressure 180/110 or more can not be treated
- Chair Position: Avoid rapid position change
- Avoid use of Retraction Cords, and topical hemostatic agent containing epinephrine, instead, use tetrhydrozoline or oxymetazoline

Dental Management

■ Emergency:

Patients with hypertension are at increased risk of cardiovascular diseases, therefore, although unlikely, angina, stroke, arrhythmia, and MI should all be anticipated as possible occurrence

Summary

- Dental treatment can be provided for all patient with hypertension except uncontrolled hypertension
- Some oral manifestation of anti-hypertensive drugs are: (dry mouth, taste change, gingival hyperplasia)
- Some considerations for hypertensive patient include:
 - Erythromycin and Clarithromycin should not be used in patient taking calcium channel blocker
 - Avoid prolong use of NSAIDs (2 weeks)
 - Retraction cords contain epinephrine and should be avoided
 - No more than 2 anesthetic carpules should be used



THANK YOU

