

The Importance of Medical Consultation and Health Outcomes in Patients with Chronic Diseases

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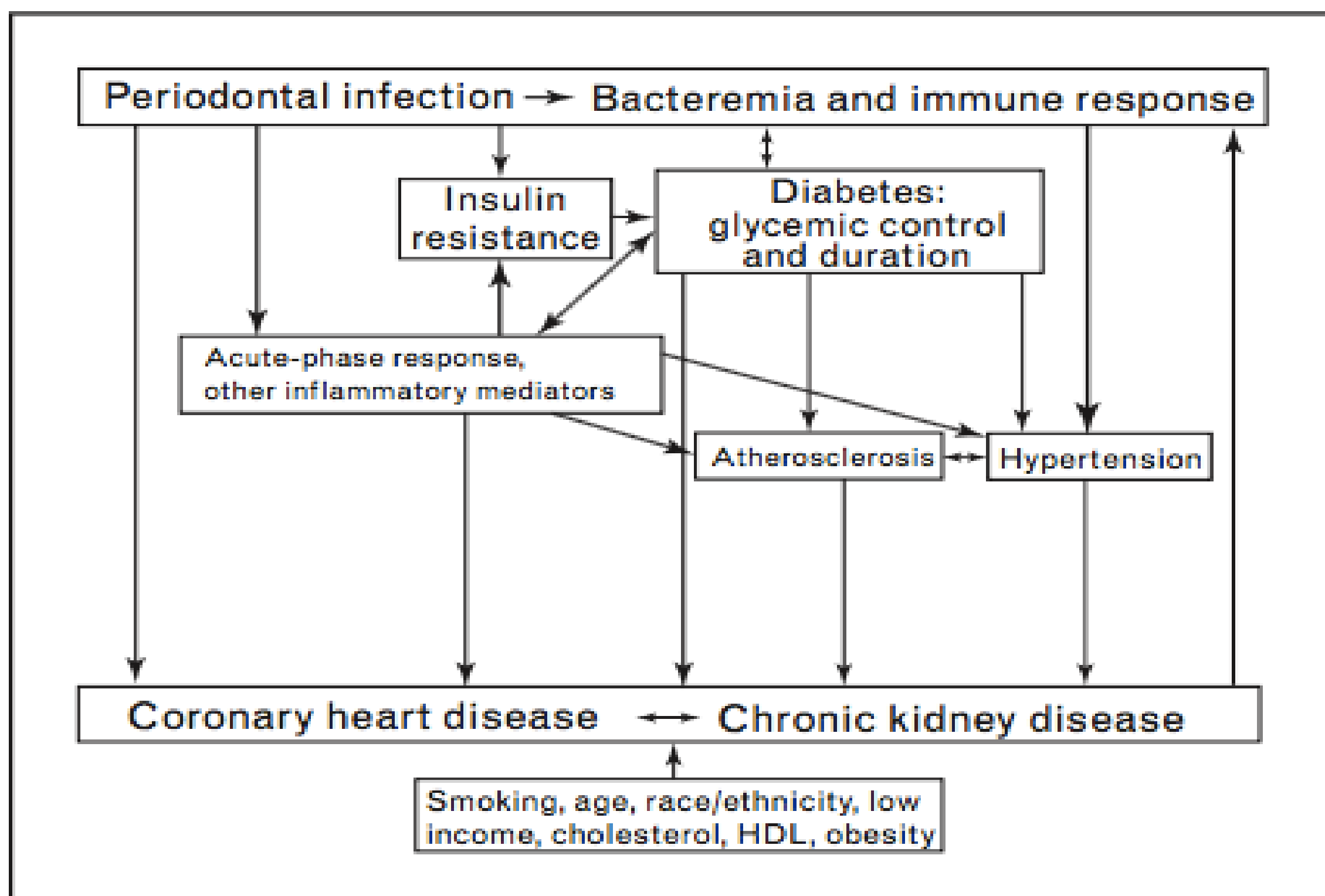
INTRODUCTION

Chronic diseases are very common in the general population, with a higher prevalence in minorities. After examining the top 5 chronic diseases at Howard University College of Dentistry, we decided to assess the dental public health concerns associated with these chronic diseases in our own population. When treating patients with existing chronic diseases, it is important that dental management and oversight must be altered and expanded to successfully treat individual patients. The lack of attention to detail may result in prolonged bleeding, poor healing, and increased infection rates.

COMMON FINDING

According to *Pediatric Dentistry*, “monocytes and macrophages activated by periodontal inflammation enter vessel walls and produce cytokines that further increase inflammatory responses and propagate” heart diseases (Nosarti, 2013). These processes worsen overall dental health and overall systemic health.

PERIODONTAL DISEASE AND CHRONIC DISEASES



Fisher, M., (2010), *Current Opinion Nephrol Hypertension*, 19(6):519-526

DENTAL MANAGEMENT

- Collaboration between the dental/medical team is important because it provides the patient with the most optimal quality of care, while minimizing the chances of complications.
- Dental treatment complications can affect different body systems including but not limited to cardiovascular disturbances, stroke, TMJ problems, endocrine system alterations, infections and episodes of severe pain.
- Chronic diseases can sometimes alter anesthesia processes for certain dental procedures.
- Patients with severe chronic diseases are usually provided local anesthetic as the preferred method because it does not lower the oxygenation of blood (Seitz, et al, 2019; Smith et al. 1987).
- For patients who require general anesthesia, before a dental procedure the hemoglobin levels should be obtained. Obtaining the hemoglobin levels should be accomplished 10 to 15 days before the operation. For children with sickle disease, optimum hemoglobin levels are obtained after blood transfusions (Smith et al. 1987).

CONCLUSION

Disadvantaged patients may not know of existing chronic diseases or have visited a physician every 5 years. Dental students & Dentists are on the front line to diagnose many chronic diseases based on oral symptoms in children and adults. Infections can exacerbate chronic conditions such as: diabetes, hypertension and other cardiac issues. If the patient presents with a chronic disease, it is important to complete a medical consultant with medical professionals prior to completing a treatment plan or providing extensive dental treatment.

ORAL MANIFESTATIONS OF CHRONIC DISEASES

Chronic Diseases/Conditions in Howard University (HUCD) Patients	Oral Manifestation
Heart Failure (CHF)	Periodontal Disease, Bleeding gums
Diabetes	Periodontal Disease
Kidney Disease	Hyperpigmentation, Bleeding Gums
Oral Cancer	Oral Lesions, ↑ root caries
Substance Abuse (Tobacco & Alcohol Use)	Stain, Periodontal Disease, Oral lesions
HIV	Oral lesions, Candidiasis, Periodontal Disease
Other (Liver, Thyroid)	Periodontal Disease
Porphyria	Bleeding gums
Hepatitis	Periodontal Disease
Asthma	Cracked lips
Sinusitis	Pain in the posterior areas of maxillary teeth
Stroke	Periodontal Disease, Petechiae
Hypertension	Periodontal Disease
Pace Maker (Side Effects)	Periodontal Disease

MEDICAL CONSULTATIONS

- Medical consultations assist in early prevention of complications prior to the start of dental procedures.
- Possible complications during or following a dental procedure include but are not limited to serious infections, dental caries, allergic reactions, increased risk of periodontal disease, slow healing, prolonged bleeding, extensive loss of teeth, etc.
- Medical consultation help to minimize post treatment complications, and ensure the well being of the patient being monitored during the dental procedure.

RECOMMENDATIONS

- It is recommended that Howard University College of Dentistry students work closely with Faculty and staff to obtain detailed information regarding the patient’s medical history and current medications.
- Patients with chronic disease require consults with the patient’s hematologist, cardiologist, internist, and other specialist.
- When treating a patient with chronic diseases, it is important to go the extra mile in ensuring patient safety.