

Maxillofacial clinical markers of cardiovascular disease

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Abstract

Cardiovascular diseases is rapidly increasing in prevalence across the world and particularly in India at a relatively younger age. The present editorial addresses the significance of maxillofacial markers associated cardiovascular diseases.

Keywords: Cardiovascular diseases, Frank sign, Arcus senilis.

In recent few years, dental speciality has presaged a lot of concern towards the signs of systemic diseases in maxillofacial region. This can be moderately quirked to the escalating incidences of patients reporting with systemic diseases to dental clinic. The surge in systemic diseases amongst general population may be because of life style, environmental changes and many more.¹ This rise in the incidence of systemic diseases made the dentist to critically evaluate and examine every patient to avoid uneventful incident in the dental clinic. Sometimes this mindset of the dentist made the patient to go for futile investigations leads to financial burden and lag in dental treatment.

The outright evaluation of systemic diseases falls under the grey area of dental practice. The general dentist and even speciality dental practitioner often fails or falls very much short of proficiency to understand the notion between systemic diseases and its manifestation in maxillofacial region. As they do not completely examine the other maxillofacial structures apart from oral cavity. Hence there is vast void to be filled in understanding the manifestations of systemic disease in maxillofacial structures.

With the shift of the century notably in the later half, cardiovascular diseases have become the leading cause of mortality in India. Ischemic heart disease and stroke are the predominant element and are answerable for >80% of the cardiovascular deaths.² A consequential proportion of people with cardiovascular diseases are not identified when they visited dental clinic for treatment.³ So, oral health care providers play a pivotal role in determining CVD in early stage.

As atherosclerosis starts in early childhood the process of risk evaluation must start quite early. Identifying subtle maxillofacial clinical markers suggests atherosclerosis at young age may prove to be advantageous in early diagnosing and prevention of CVD.⁴ It cost little to look outside the oral cavity for various clinical markers, which may suggest subclinical or obvious atherosclerosis and other vascular diseases, such as diabetes, hypertension, peripheral arterial diseases etc.

Judicious appraisal of various maxillofacial markers linked to CVD would help dentists to suspect disease in the subclinical phase, and thus make it easier to decide who is likely to need further detailed cardiovascular investigation. A diligent search for the maxillofacial markers relevant to

CVD may prove to rewarding exercise in identifying asymptomatic CVD in high risk individuals.

Diagonal ear lobe crease (DELIC) (Fig. 1) and arcus senilis (AS) (Fig. 2) are the two trivial clinical markers manifest in maxillofacial region which is effortless to identify for general dentist.



Fig. 1: Diagonal ear lobe crease



Fig. 2: Arcus senilis

In my previous article⁵ prevalence of DELIC (Frank Sign) is 63.21% which is high enough to co relate to CVD and DELIC. The desirable explanation for DELIC and CVD exists concurrently because the earlobe and heart are supplied by “End arteries” without the possibility for collateral circulation.

Arcus senilis is an opaque ring, complete or incomplete, yellow or greyish material at the periphery of the cornea due to abnormal serum lipid levels. Like DELIC, arcus senilis incidence ranges from 14% to 75% as age advances.⁶

With this, I would like to grab an attention of researchers and fraternity of dentistry to oversee further research on such easily identifying maxillofacial clinical

markers to affirm underlying systemic diseases. I also appeal to faculty of dentistry to educate undergraduate and post graduate students regarding such identifying clinical markers.

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Conflict of Interest

None.

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