

COLOR DOPPLER SONOGRAPHY IN ASSESSMENT OF MENTAL ARTERY BLOOD FLOW

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ABSTRACT:

Blood supply of the mandible is an important determinant of the healing process after injury or operation .This fact makes it clear that mandibular hypoperfusion and ischemia are particular problems in the elderly patients and in those who have had radiotherapy .Doppler Sonography is widely used to assess blood flow in most major arteries and several of the smaller arteries in the body .Though to our knowledge, its use in the mandible to assess central blood flow has not yet been described .This study was designed to assess the feasibility of using Color Doppler Sonography to evaluate the characteristics of blood flow in the mental artery which would indicate the blood flow in the inferior alveolar artery and to compare between results obtained from control group and that obtained from atherosclerotic patients . Thirty subjects with different ages)22 -69 years (were included in this study and comprised two groups; atherosclerotic and control group on whom color Doppler Sonographic examination of the external carotid artery and the mental artery on both sides)Right and Left (was carried out .Results of this study revealed a significant difference between mental and external carotid arteries' indices within the two included groups .Also a significant correlation was proved between mental and external carotid arteries' indices and advancement in age within the two groups .A strong correlation was recorded between mental artery -resistive index and external carotid artery -resistive index within each of the two groups .No wonder that, as the mandibular blood supply is an important factor contributing for many clinical dental problems, its assessment is considered critical in the overall evaluation of healing of the mandible .