Evaluasi spektrum gelombang USG Doppler dan kaitannya dengan Ankle Brachial Index (ABI) dan faktor-faktor risiko pada pasien Peripheral Arterial Disease (PAD) = The evaluation of Doppler Ultrasonography spectral waveform and its relationship with Ankle Brachial Index (ABI) value and risk factors in Peripheral Artery Disease (PAD) paitents

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Abstrak

[ABSTRAK
 Salah satu komplikasi dari Peripheral Arterial Disease (PAD) adalah kerusakan tungkai bawah hingga tidak

dapat digunakan untuk beraktifitas. PAD disebabkan oleh gangguan vaskular yang menyebabkan atherosklerotik

pada vaskular di bagian distal. Suatu penelitian kohort di Swedia menyatakan bahwa penyembuhan primer, laju

amputasi dan mortalitas pada pasien PAD berhubungan dengan derajat insufisiensi vaskular. Dengan demikian perlu dilakukan penelitian untuk mengetahui karakteristik vaskular pada kasus PAD secara kuantitatif maupun kualitatif serta hubungannya dengan nilai Ankle Brachial Index (ABI) dan gambaran gelombang Doppler Ultrasonography(DUS). Metode penelitian menggunakan studi potong lintang. Hasil penelitian didapatkan

pasien PAD dengan nilai ABI rata-rata 0,7 dengan gambaran gelombang DUS yang berubah dari trifasik menjadi non-tirfasik dominan pada arteri infrapopliteal. ABI di bawah 0.9 menunjukkan perubahan pada gelombang DUS dari arteri femoralis hingga a.dorsalis pedis dengan nilai $p < 0.05$. Faktor-faktor risiko yang paling tampak adalah usia di atas 45 tahun yang menunjukkan peningkatan risiko PAD. Selain itu hubungan ABI dan faktor ?faktor risiko menunjukkan bahwa hiperlipidemia dan diabetes melitus menunjukkan hubungan signifikan dengan $p<0,05$. Sedang pada hubungan DUS dan faktor-faktor risiko hanya usia >45 tahun yang

tampak secara statistik signifikan meski secara klinis faktor-faktor risiko yang lain menunjukkan jumlah persentase yang diatas 50%. Disimpulkan bahwa dengan mengetahui nilai ABI dapat ditentukan derajat keparahan PAD dan juga dengan mengetahui gelombang DUS saja maka dapat diketahui oklusi di tingkat segmen arteri yang mana.Selain itu, usia di atas 45 tahun, hiperlipidemia dan juga diabetes melitus merupakan faktor risiko yang penting untuk terjadinya atherosklerosis dan penyumbatan pada distal arteri. Penggunaan DUS untuk menentukan tingkat penyumbatan sangat informatif dalam hal penggambran gelombang, aman dan murah sehingga dapat menetukan tindakan selanjutnya.ABSTRACT<b> One of the complications of Peripheral Arterial Disease (PAD) is the damage that can be made to the lower extremities causing difficulties to perform any activities with it. PAD is caused by vascular insufficiency known as atherosclerotic of the distal vascular. A cohort research in Sweden described that the primary recovery, amount of amputation and mortaltiy of PAD patients is related to the degree of vascular insufficiency. As for which, a research should be made to endorsed the knowhow of the vascular characteristics on PAD patients

quantitatively and qualitatively in accordance to ABI value and DUS spectral waveform. Methods used is cross

sectional. The result was, PAD patients had mean ABI value of 0.7 with changes of DUS spectral waveform from triphasic to non-triphasic dominantly seen in infrapopliteal arteries. ABI less than 0.9 has a significant value towards changes in the spectral waveform from the femoral artery to the dorsal pedis artery. The risk factors such as age above 45 years old shows a significant relationship with the increase in PAD risk (p <0.05). Besides that, p <0.05 was also seen in hyperlipidemia and diabetes mellitus patients with PAD. As for the

relation between DUS and the risk factors, age above 45 years old was seen significant statistically eventhough

clinically all risk factors showed a percentage above 50%. It is concluded that by knowing the ABI value, the

degree of severity of PAD can be acknowledge and by knowing the waveform of DUS only one can know the

level of occlusion in an arterial segment. Besides that, age above 45 years, hyperlipidemia and diabetes mellitus are the important risk factors that causes atherosclerosis and occlusion in distal arteries. The usage of DUS to evaluate the level of occlusion is very informative showing images, it?s safe, low cost and can indicate towards future intervention. ;One of the complications of Peripheral Arterial Disease (PAD) is the damage that can be made to the lower

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