

[P45] INTEROBSERVER RELIABILITY OF THE ANKLE-BRACHIAL INDEX (ABI), TOE-BRACHIAL INDEX (TBI) AND DISTAL PULSES PALPATION IN PATIENTS WITH DIABETES

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Aim: To analyze the interobserver reliability of the ankle-brachial index (ABI), the toe-brachial index (TBI) and distal pulses palpation in patients with diabetes depending on the training of the professional involved.

Method: We conducted a prospective study between November and December 2016 in a Diabetic Foot Unit, which included 12 outpatients with diabetes. The ABI and TBI were assessed by three clinicians with different levels of experience using a manual 8 MHz Doppler (Doppler II, Huntleigh Healthcare Ltd, South Glamorgan, UK), and the toe systolic pressure was taken with a digital plethysmography (Systoe, Atys Medical, Quermed, Madrid). The ABI and the TBI were calculated, separately for each leg, with the equations of the ankle or toe pressure readings divided by the highest brachial reading between the right and left arms. Distal pulses (posterior tibial and dorsalis pedis artery) were assessed for each clinician.

Results/Discussion: Twenty three ABI, eighteen TBI and twenty four distal pulses were assessed in our study population. Table depicts the Intraclass Correlation Coefficient and the Kappa Coefficient among the clinicians with different levels of experience.

	Intraclass Correlation Coefficient (CCI)			P Value			Strenght of agreement
	Kappa Coefficient (K)						
ABI (n=23)	CCI ₁₂ =0,907	CCI ₁₃ =0,951	CCI ₂₃ =0,923	<0,001			Very Good
TBI(n=18)	CCI ₁₂ =0,718	CCI ₁₃ =0,885	CCI ₂₃ =0,781	0,006	<0,001	0,001	Good
Posterior Tibial (n=24)	K ₁₂ = 0,667	K ₁₃ =0,5	K ₂₃ =0,5	0,001	0,009	0,014	Good/Moderate
Dorsalis Pedis (n=24)	K ₁₂ = 0,538	K ₁₃ =0,474	K ₂₃ =0,746	0,003	0,006	<0,001	Moderate/Low/Good

Conclusion: Palpation of distal pulses in patient with diabetes is operator dependent among clinicians with different levels of experience, nevertheless the assesments of ABI and TBI are not operator dependent. We observed a low agreement, among experienced and unexperienced clinician, in the palpation of dorsalis pedis arteries of our patients.