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MDPI

Supplementary Information

Handheld briefcase optical coherence tomography with real-time machine learning classifier for middle ear infections

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1. Supplementary Table

Table S1. Results of a two-way analysis of variance (ANOVA) and a multiple comparison test comparing TM thickness measured by different users of the briefcase system in **Figure 4(f).**

Subject ear	Novice 1 – Expert 1	Expert 1 – Expert 2	Novice 1 – Expert 2
1L	***p* < 0.001**	***p* < 0.001**	***p* < 0.001**
1R	***p* = 0.0022**	$p = 0.3512$	$p = 0.6417$
	Novice 2 – Expert 1	Expert 1 – Expert 2	Novice 2 – Expert 2
2L	***p* = 0.0033**	***p* = 0.0186**	$p = 0.8911$
2R	***p* < 0.001**	***p* < 0.001**	***p* < 0.001**
	Novice 1 – Novice 2	Novice 1 – Expert 2	Novice 2 – Expert 2
3L	***p* < 0.001**	$p = 0.1469$	***p* < 0.001**
3R	***p* < 0.001**	***p* < 0.001**	***p* < 0.001**
	Novice 1 – Novice 2	Novice 1 – Expert 1	Novice 2 – Expert 1
4L	$p = 0.9999$	$p = 0.1199$	$p = 0.0763$
4R	***p* < 0.001**	***p* = 0.0051**	$p = 0.7172$

2. Supplementary Video (Video S1)

Video S1. Demonstration of middle ear imaging by the ML-briefcase system. The entire process from starting the program, locating the eardrum during free run, triggering the classification and data acquisition, and displaying the classified results is shown. The flow diagram is illustrated in **Figure 3**.