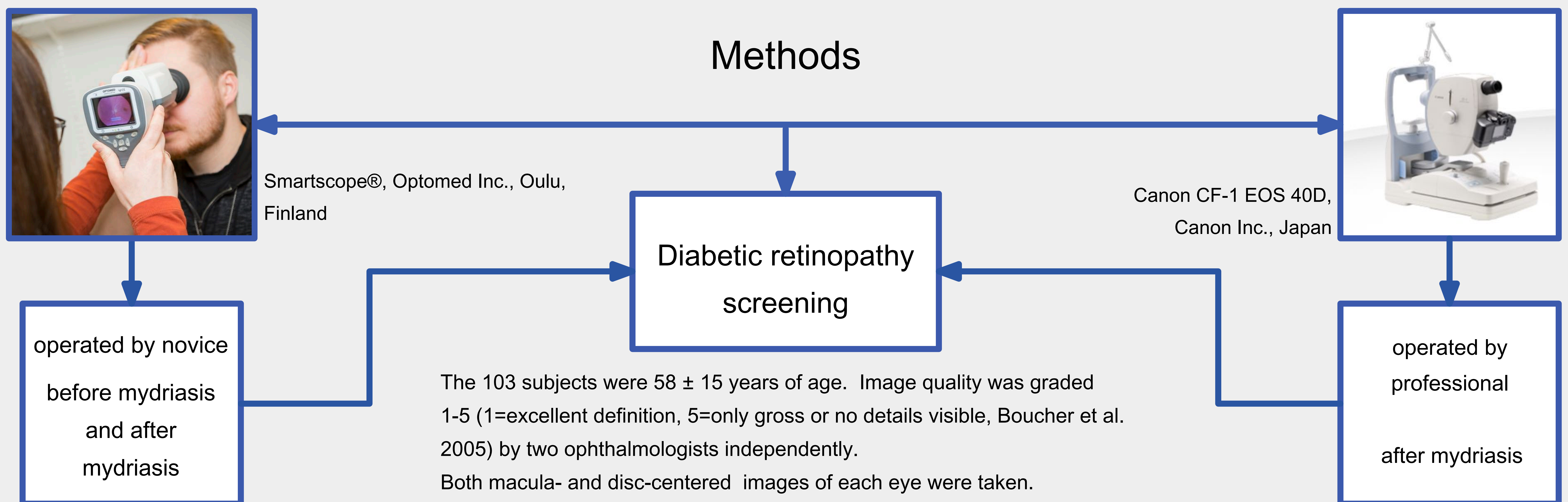


Image quality of fundus photographs of diabetic eyes taken by inexperienced photographer using light-weight hand-held fundus camera and professional photographer using standard fundus camera



MSc Carolin Schanner, MD Nina Hautala, MD Aura Falck

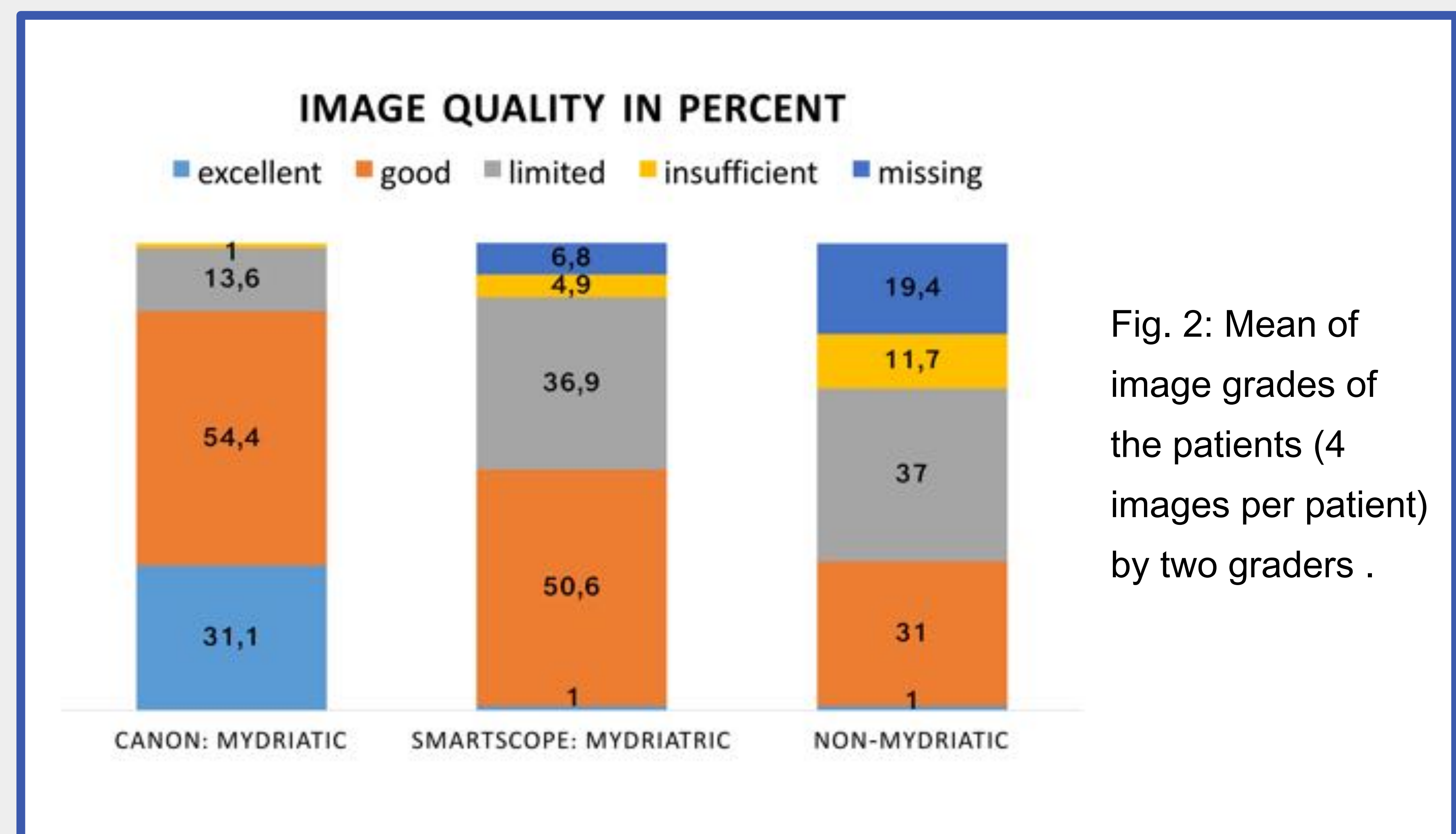
Medical Research Center, University of Oulu and Oulu University Hospital, Oulu, Finland



Smartscope (non-mydriatic)	Canon (mydriatic)
excellent definition	
good definition of most details	
definition limited but permitting confident assessment	
insufficient definition for confident assessment	
only gross or no details visible	

Fig. 1: Examples for the gradings of the images done with Smartscope and Canon camera.

Results



Conclusion

In most cases, even the non-mydriatic images taken by an inexperienced photographer using the hand-held camera were graded as 3 or better, and image quality further improved by dilation. The best images were expectedly obtained by professionals using the standard camera. Be photography by standard camera inaccessible or unaffordable, it appears that assessable images for diabetic retinopathy screening may be obtained by mobile hand-held fundus camera.

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