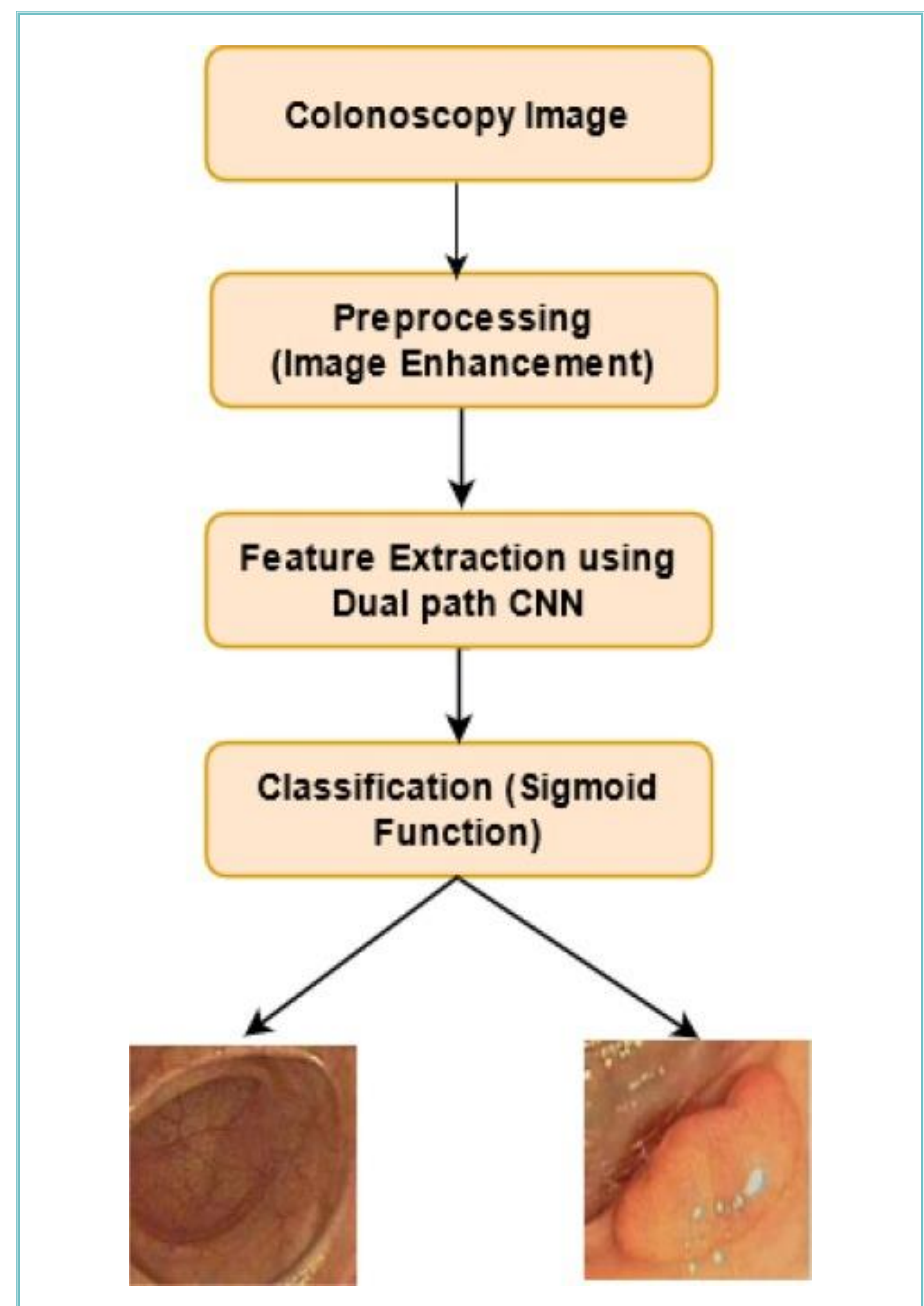
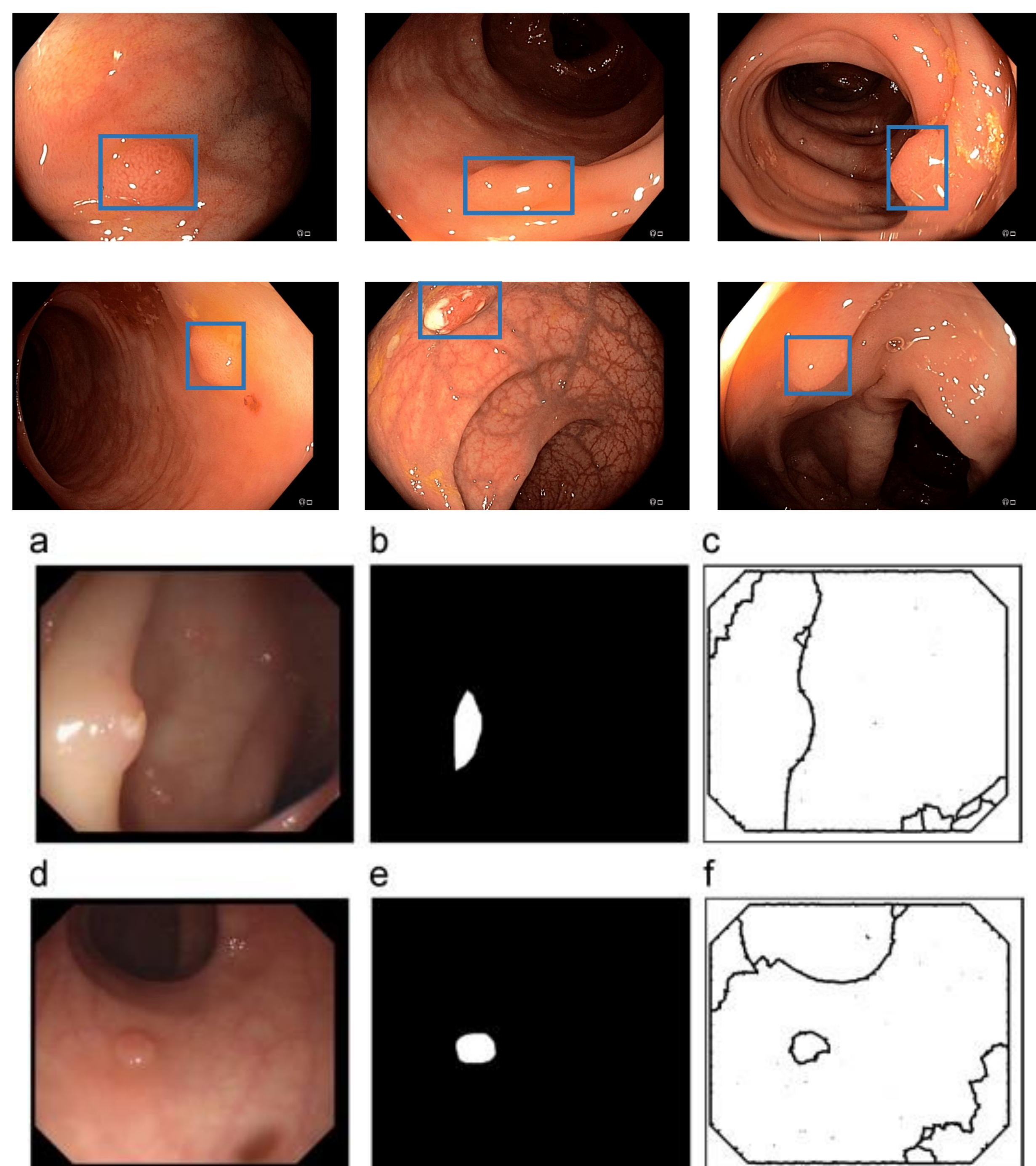


Polyp-Detection System in Colonoscopy Using Deep learning

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Introduction

Since the introduction of commercially available AI-systems for colorectal polyp detection, the use of these promising systems in daily practice is increasing.(1) The great potential of AI-systems is currently in the field of diagnostics, as CADe systems support the examiner in real time and with high sensitivity. Since CADe systems have been trained with diagnostic polyp images, they achieve high sensitivity for native polyps in the colon. However, changes to the mucosa in the course of an intervention (e.g., injection) lead to false positive detections, as the systems have not been trained for such situations.(2, 3) The instruments used during the intervention also lead to many false positive detections that may disturb the investigator's concentration. In addition, there are many non-false but irrelevant detections because the polyp causing the intervention has been previously detected. To enable the investigators to put their full concentration on the intervention, no distracting AI signals should be visible during the intervention. This could be achieved by suppressing the CADe signal during the intervention, since polyp detection is not necessary during the intervention.(4)



References

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