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Introduction & Objectives: Artificial Intelligence (AI) is the recently advanced technology in machine learning which is increasingly used to help radiologists, especially when working in arduous conditions. Microsoft Corporation offered a free-trial service calling Custom Vision to develop AI for images.

Materials & Methods: Radiological images of prostate cancer-proven patients who underwent MRI during 2018-2019 were used to train AI for detecting cancer lesions. The training processes were divided into 5 iterations of 30, 60, 100, 130, and 160 lesion datasets. After each training, the AI was tested as "Performance Per Tag" and clinical performance. There were 3 types of trainings; quick, 1-hour, and 2-hour trainings.

Results: This study included 161 prostate cancer images with 189 lesions from 52 patients. The 160-tag iteration presented the best performance: precision 20.0%, recall 6.3%, mean average precision (M.A.P.) 13.1%, and prediction rate 31.58%. The performance of 1-hour training was better than quick training, but was not different from 2-hour training.

Conclusions: Health personnel can easily develop AI for the detection of prostate cancer lesions in MRI.