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Abstract

Artificial intelligence has been frequently used to classify pigmented lesions in order to promote earlier detection of melanoma, the most deadly skin cancer.

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Abstract:

Most articles evaluate algorithms accuracy to classify pigmented lesions. However, highest accuracy are not always related to the lowest health system costs. One melanoma false negative (FN) can lead to later stages disease resulting in highdirect and indirect costs. We worked with a dataset of 8000 dermoscopy images from ISIC dataset (4000 melanomas). 80% of them were used for training, 10% for validation and 10% for testing. We transferred learning from a pre-trained image net to Efficient Net and trained it with 20 epoch. We built a cost matrix based on values spent by the Health Public System in Brazil for the diagnosis and treatment of melanoma in different stages and measured how the algorithm would perform in a real world set of patients according to the cost of each wrong prediction.

Biography:

Physician and dermatologist graduated from USP. Head of the psoriasis clinic at the University of Mogi das Cruzes. Specialization in Cosmiatry and Laser and also in Trichology by UMC. Focused in the field of research in teledermatology since 2015, she currently works on the

teledermatology project of Hospital Israelita Albert Einstein and in the Big Data sector of Einstein, helping to develop protocols and algorithms for artificial intelligence and machine learning for dermatology. Speaker from Novartis, Abbvie and Janssen.

Recent Publications:

1. Treatment of Male-Pattern Alopecia with Platelet-Rich Plasma
2. Treatment of psoriasis vulgaris with cyclosporine and methotrexate injections using the MMP® technique

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