Review of: "Deep learning based sarcopenia prediction from shear-wave ultrasonographic elastography and gray scale ultrasonography of rectus femoris muscle"

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Potential competing interests: The author(s) declared that no potential competing interests exist.

The current, novel paper evaluates the performance on three different DCNN (deep convolutional neural network) in predicting the presence or absence of sarcopenia, using grey-scale ultrasound (GSU) and shear-wave elastography (SWE) images.

The authors obtained the best performance for predicting sarcopenia on both GSU and SWE images with VGG19 pre-trained model. There was a 77.8% sensitivity and 72.7% specificity for GSU images and 88.9% sensitivity and 72.7% specificity for SWE images respectively; with an overall accuracy of 80-85%.

Furthermore, the authors DCNN model outperformed all five radiologists highlighting the crucial role that AI will have in the radiology of the future.

However, the authors results should be validated on a larger and various cohort (because the model was based only on Korean individuals).