Deep Learning-Based Diagnosis of Disease Activity in Patients with Graves' Orbitopathy Using Orbital SPECT/CT

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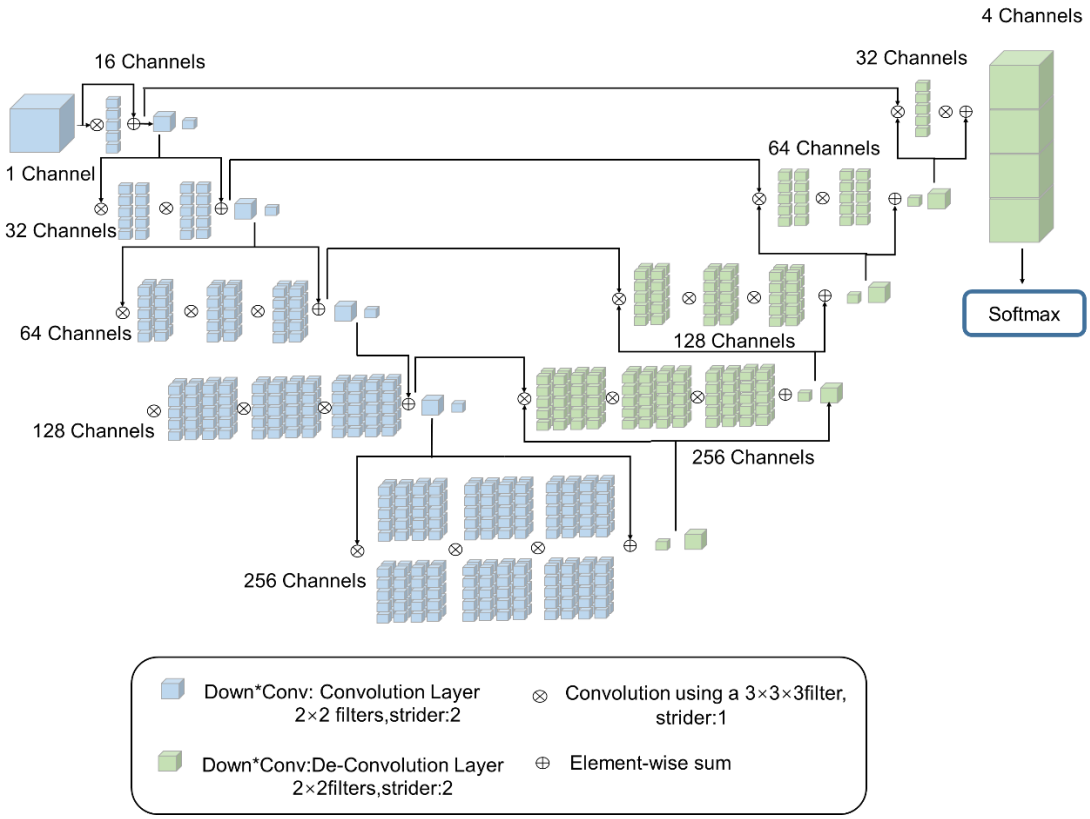
Supplemental Table

Supplemental Table 1 Performance of the classification model on the test set grouped by gender and age.

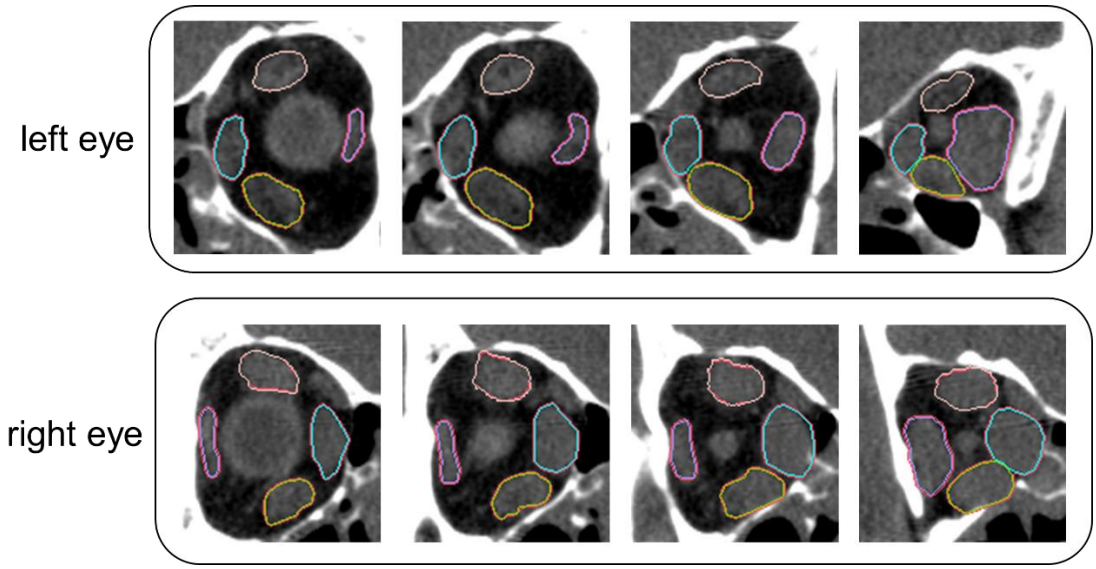
	Accuracy(%)	Precision(%)	Sensitivity(%)	Specificity(%)	F1-score
Male	89.67±1.46	87.32±1.81	92.61±1.07	86.81±2.08	0.89±0.01
Female	79.6±0.80	78.27±3.78	81.63±2.91	77.65±1.63	0.80±0.01
Age < 45	83.03±1.34	78.55±2.29	76.84±2.00	86.89±1.80	0.78±0.02
Age >= 45	84.89±1.24	87.97±1.51	87.02±1.79	81.62±2.65	0.87±0.01

Supplemental Figure legends

Supplemental Fig. 1 Flowchart of GO-Net architecture for segmentation.

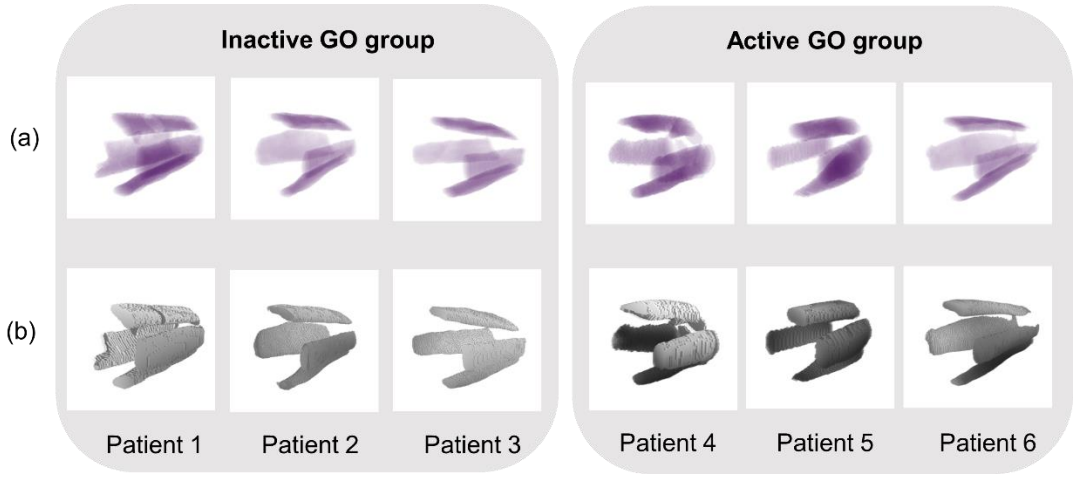


Supplemental Fig. 2 Semantic segmentation results.



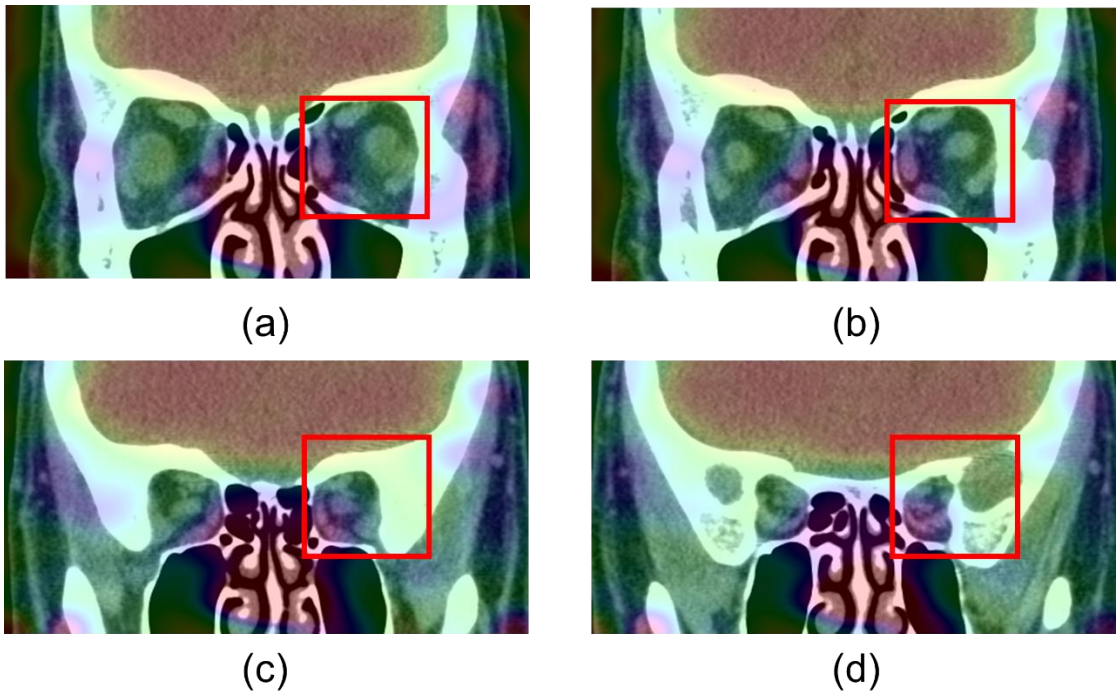
The first row is a slice of the GO patient's left eye, and the second row is a slice of the right eye of the GO patient. The red contours in all slices represent the ground truth. Colors in the annotations reflect the contours of segmentation results: blue, MR; purple, SR; yellow, LR; yellow, IR.

Supplemental Fig. 3 Three-dimensional morphology and function of EOMs derived from orbital SPECT/CT.



(a) 3D morphology of EOMs derived from CT (b) DTPA uptake of EOMs derived from SPECT.

Supplemental Fig. 4 Coronal views of SPECT/CT fusion image.



The red box marks the eye of interest, a patient who experienced high uptake of DTPA in the adjacent sinuses, leading to the misinterpretation of their medial rectus and inferior rectus muscles by the model as areas where lesions occurred. (a), (b), (c), (d): different slices of SPECT/CT fusion images.