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(54) **Title:** METHODS AND SYSTEMS FOR DETECTING VASCULATURE

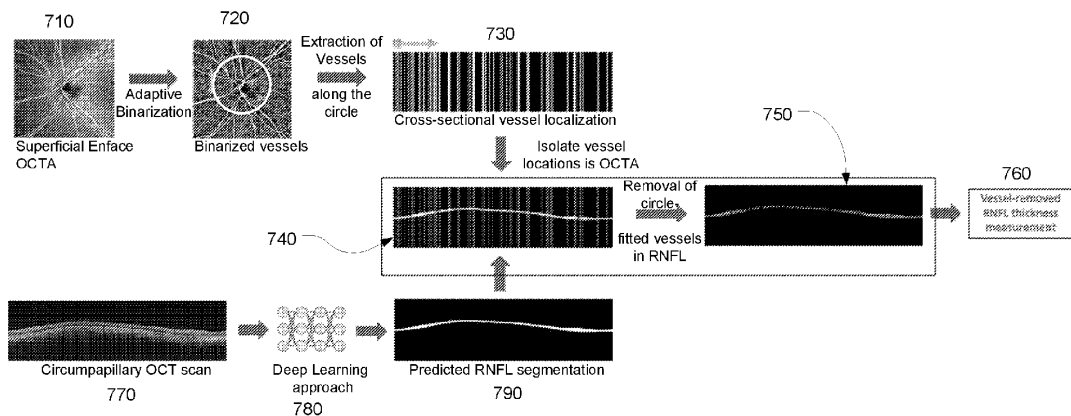


Figure 7

(57) **Abstract:** The invention relates to a system of detecting vasculature in optical coherence tomography (OCT) image data of a tissue of a subject, the OCT image data comprising OCT scan data and OCT angiography (OCTA) scan data, the system comprises segmenting the OCT scan data to locate a layer of interest in the tissue; generating an en face vascular network map from the OCTA scan data; projecting one or more vascular regions from the en face vascular network map onto the layer of interest in a cross-sectional image of the OCT scan data to define one or more regions of interest (ROIs), wherein respective ROIs are defined by the intersection between the vascular regions and the layer of interest; and identifying vascular objects in the one or more ROIs. In the preferred embodiment, the tissue is retina, vessels are removed from the layer of interest and the retinal nerve fibre layer (RNFL) thickness is determined.

[Continued on next page]

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