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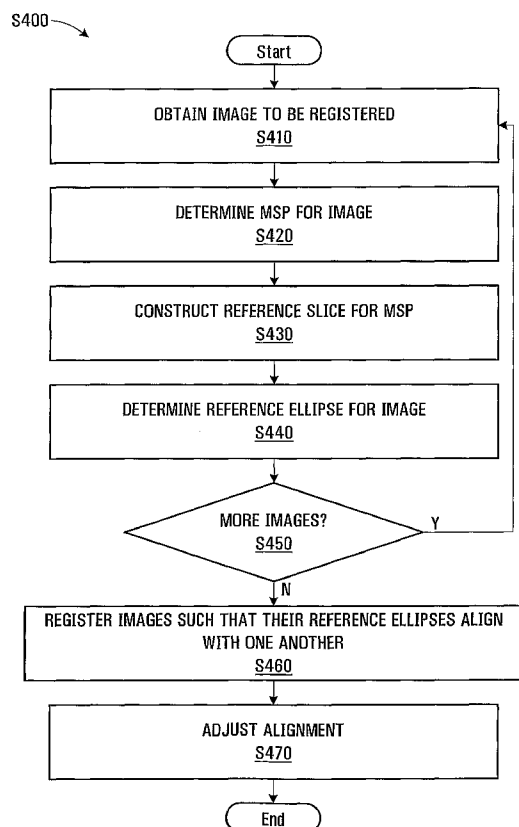
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(54) Title: REGISTERING BRAIN IMAGES BY ALIGNING REFERENCE ELLIPSES



(57) Abstract: In a method of registering three-dimensional brain images, a reference slice for a midsagittal plane of each image is constructed. The reference slice comprises image points forming a cortical edge. Edge points are selected from these image points such that an ellipse fit to the edge points approximates the cortical edge. The reference ellipse in each image that fits the edge points is determined. The images are registered in a same coordinate system such that the reference ellipses in the images are aligned with one another.



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