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(54) Title: METHOD AND SYSTEM FOR DETERMINING VASCULAR REGION PATHOLOGY BASED ON RADIODENSITY AND RADIOMIC FEATURES

Figure 1A

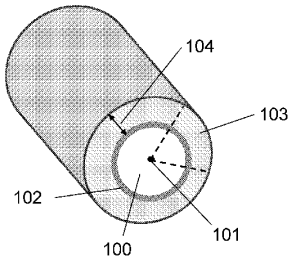
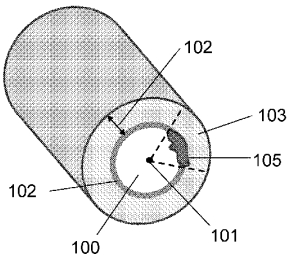


Figure 1B



(57) Abstract: The present invention relates to methods for characterising the pathology or state of a vascular region of a subject by: providing medical imaging data gathered along a length of a blood vessel and: determining radial segments of the vessel extending from a point in the centre of the vessel to a distance extending beyond the outer wall of the vessel to the perivascular region; determining a value for the radiodensity and/or one or more radiomic features of the radial segment; and comparing each value determined to a pre-determined value or using the absolute value, in order to generate an output value that indicates the pathology or state of the vascular region, or the inflammation of a plaque. At least one method step is computer implemented. The invention also provides a computer program product configured to carry out these methods, and to a system comprising one or processors to configured to perform the methods.

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