

**Appendix: Summary of clinical trials evaluating the accuracy of multiple-slice spiral computed tomographic angiography (MSCT)**

Study report	No. of patients	Vessel sizes, mm	No. of segments examined	Analysis*	Portion analyzable, %	MSCT slices per rotation speed, s	Subjects' risk of CAD	PPV	NPV	Sensitivity	Specificity
Nieman et al 2002†	53	> 2.0	NA	Patient	NR	16/0.42	High	80	97	95	86
Ropers et al 2003‡	77	> 1.5	NA	Patient	88	16/0.42	High	81	82	85	78
Hoffmann et al 2004§	33	All	530	Pt, segment	82	16/0.42	High	90	75	86	82
2005¶	103	All	1384	Pt, segment	< 94	16/0.42	Mod-high	90	95	97	87
Kuettner et al 2005**	72	All	936	Segment	> 91	16/0.37	High	87	97	82	98
Leschka et al 2005††	67	• 1.5	1005	Pt, vessel, seg	100	64/NA	Mod-high	87	99	94	97
Mollet et al 2005‡‡	51	> 2.0	610	Pt, vessel, seg	NR	16/0.37	Low-mod	91	100	100	85
Raff et al 2005§§	70	All	1065	Pt, vessel, seg	83	64/0.33	Mod-high	93	93	90	95

Note: CAD = coronary-artery disease, PPV = positive predictive value, NPV = negative predictive value, NA = not available, NR = not reported, Pt = patient, seg = segment of vessel, mod = moderate.

\*These trials compared the accuracy of MSCT angiography with invasive coronary angiography for the detection of severe coronary lesions. Some study analyses were based on numbers of artery segments (seg) that held a lesion (e.g., the Raff group's study involving 70 patients based its analysis on the results from 1065 segments); others, on numbers of entire coronary vessels containing a lesion (e.g., the left anterior descending artery); and still others (probably the most stringent strategy), on numbers of patients (Pt) having one or more vascular lesions.

†*Circulation* 2002;106:2051-4.

‡*Circulation* 2003;107:664-6.

§*Circulation* 2004;110:2638-43.

¶*JAMA* 2005;293:2471-8.

\*\**J Am Coll Cardiol* 2005;45:123-7.

††*Eur Heart J* 2005;15:1482-7.

‡‡*J Am Coll Cardiol* 2005;45:128-32.

§§*J Am Coll Cardiol* 2005;46:552-7.