Title

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Has the Introduction of Intravascular Ultrasound Guidance Led to Different Clinical Results in the Deployment of Intracoronary Stents?

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The use of intravascular ultrasound (IVUS) during stent insertion leads to greater acute gain, however, evidence that the information provided by IVUS leads to clinical efficacy has not yet been demonstrated. To evaluate the clinical effects of IVUS on stenting, patients receiving stents with the use of IVUS were compared with an historical cohort of consecutive patients undergoing stent implantation in the eighteen months prior to the availability of intravascular ultrasound.

	Pre IVUS (n=211)	With IVUS (n=212)	
Angiographic success(%)	97.5	97.9	ns
Complications(%)	8.1	7.5	ns
Deaths(%)	1.9	2.6	ns
CABG(%)	1.4	6.6	p<0.05
Subacute thrombosis (SAT)(%)	4.2	0	p<0.01
Angiographic follow-up (%)	75	80.1	ns
Restenosis(%)	24.1	7.9	p<0.05

Complications include death, MI, CABG, SAT, vascular problems.

Conclusion: Stent deployment with the use of IVUS is associated with significantly lower rates of subacute thrombosis (SAT) and restenosis, which likely reflect the greater acute gain achieved. Balanced against this is a higher incidence of CABG, however, a further decrease in complications may result from refinements of the techniques involved in IVUS guidance of intracoronary stent deployment.