

Inaugural Congress of Asian Pacific Federation of Societies for Reconstructive Microsurgery 8 – 9 October 2012, Singapore

Abstract Submission – Submit before 30 June 2012
Via email to secretariat@apfsm2012.com

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Topic	Select up to 3 categories	Please tick (v)
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	• Hand Flaps	
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	• Peripheral Nerve Surgery/Brachial Plexus	
	• Replantation/Toe-to-hand Transfer	
	• Trunk/Perineum Reconstruction	
	• Update on Perforator Flaps	v
• Update on Tissue Engineering and Composite Tissue Allotransplantation		
Mode of Presentation	Oral	v
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Abstract Title	Evidenced-Based Comparison of Diagnostic Performance among Handheld Doppler, Color Doppler Ultrasonography, and 64-Section Multidetector CT Angiography in Preoperative Assessment of ALT Flap Cutaneous Perforators
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Abstract Template	<p>Introduction The anterolateral thigh (ALT) flap has become a workhorse flap in the reconstruction of various defects. Because of its variable vascular anatomy, preoperative assessment of perforators has been performed using several devices. Among them, handheld Doppler, color Doppler ultrasonography, and 64-Section multidetector CT Angiography are the most common three diagnostic modalities in preoperative assessment of ALT flap cutaneous perforators. In order to compare their diagnostic performance, we conduct a systematic review for trials comparing their preoperative assessment results with the intraoperative findings as reference standard.</p> <p>Materials and Methods We searched the PubMed database from January 2000 to May 2012. We used the following key words: anterolateral thigh flap, handheld Doppler, color Doppler ultrasonography, and CT angiography. Two reviewers independently extracted data in two steps: titles and abstracts, and then the full text articles. This search was supplemented by a review of reference lists of potentially eligible studies. We excluded the duplicated reports of same patient population, and studies with incomplete or no presentation of intraoperative findings.</p> <p>Results Through our review, the handheld Doppler, color Doppler ultrasonography, and 64-Section Multidetector CT Angiography demonstrated a pooled sensitivity of 89.7% (95% CI, 85.0 - 93.0%), 95.7% (95% CI, 90.9 -98.0%) and 82.2% (95% CI, 75.0 - 87.8%), respectively in identifying the cutaneous perforators in the ALT flap.</p> <p>Conclusion We conclude that reconstructive microsurgeons should choose their own diagnostic modality according to their knowledge to the anatomy of the flap, the familiarity of the diagnostic modality, and cost effectiveness.</p>