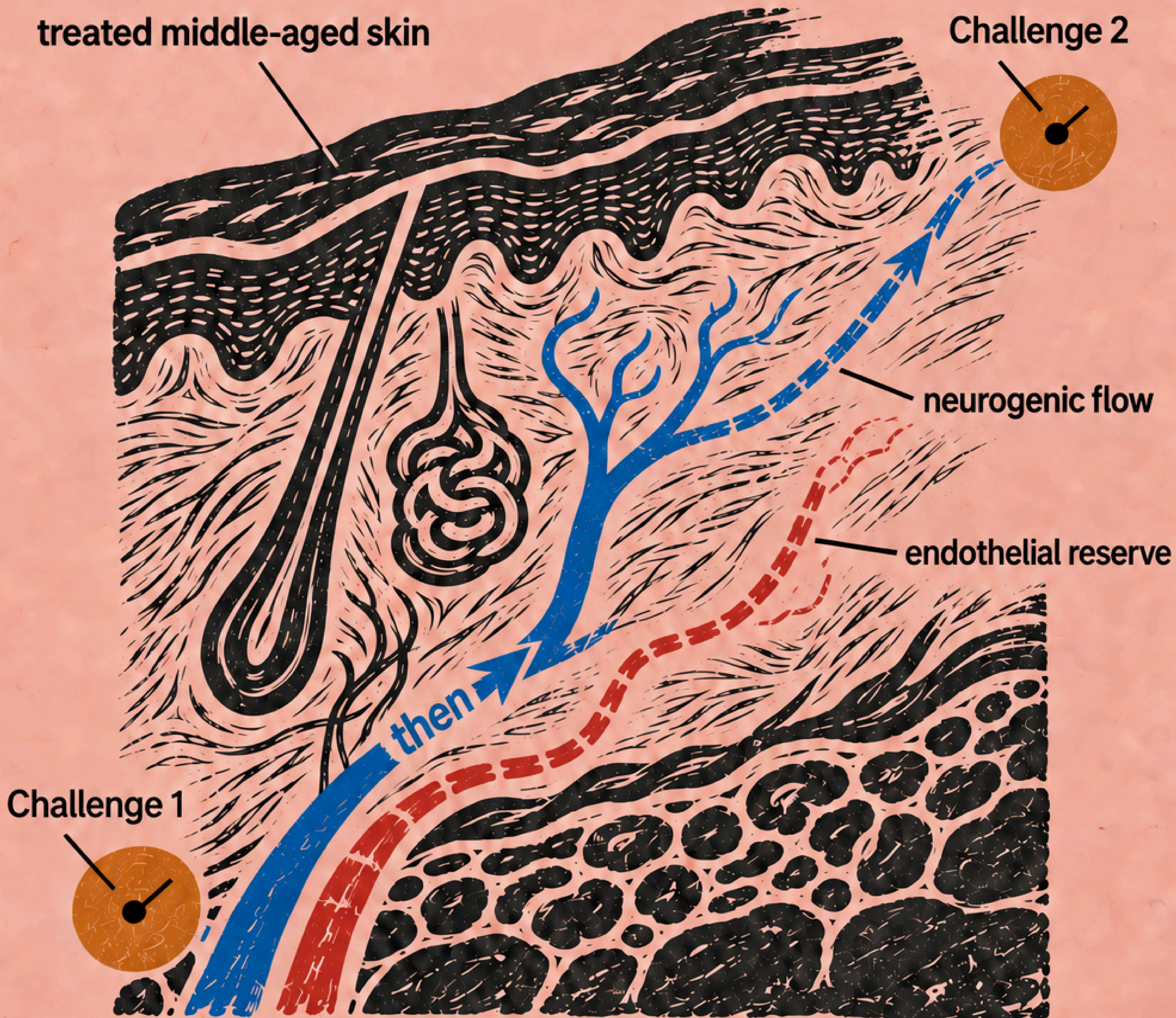


Proposed hypothesis

Perfusion shortfalls compromise skin

Challenge 1 may reduce neurogenic flow; limited endothelial reserve may weaken Challenge 2.

Vascular: weaker second flow • **Purine:** shifted timing • **Mixed:** no true deficit



Could guide therapies restoring middle-age skin function.