

Supplementary Material S2

Search Strategy

Source	Search string	Records retrieved – initial search (13–27 May 2025)	Records retrieved – updated search, re-run in full from inception (07/09/2026)	Notes
PubMed Search date: 13/05/25	((((atrophic scar*) OR (atrophic scar*[Title/Abstract])) OR ((post-acne scar*[Title/Abstract]) OR (post acne scar*[Title/Abstract]))) OR ("Cicatrix/therapy"[Mesh]) OR (post-acne scars OR "Acne Vulgaris/therapy"[Mesh]) OR (post-acne atrophic scars) OR (post-acne atrophic scars[Title/Abstract]) OR (acne scar OR atrophic scars OR acne scarring OR skin scarring)) AND (((Topical insulin[Title/Abstract]) OR (insulin[Title/Abstract])) OR ("Insulin/therapeutic use"[Mesh]))) OR ((((("atrophy"[MeSH Terms] OR "atrophy"[All Fields] OR "atrophic"[All Fields]) AND "scar*" [All Fields]) OR "atrophic scar*" [Title/Abstract] OR ("post acne scar*" [Title/Abstract] OR "post acne scar*" [Title/Abstract]) OR "cicatrix/therapy"[MeSH Terms] OR ((("post-acne"[All Fields] AND ("cicatrix"[MeSH Terms] OR "cicatrix"[All Fields] OR "scarred"[All Fields] OR "scarring"[All Fields] OR "scars"[All Fields] OR "scarrings"[All Fields])) OR "acne vulgaris/therapy"[MeSH Terms]) OR ("post-acne"[All Fields] AND ("atrophy"[MeSH Terms] OR "atrophy"[All Fields] OR "atrophic"[All Fields]) AND ("cicatrix"[MeSH Terms] OR "cicatrix"[All Fields] OR "scarred"[All Fields] OR "scarring"[All Fields] OR "scars"[All Fields] OR "scarrings"[All Fields])) OR "post acne atrophic scars"[Title/Abstract] OR (((("acne vulgaris"[MeSH Terms] OR ("acne"[All Fields] AND "vulgaris"[All Fields]) OR "acne vulgaris"[All	218	302	<i>All search terms are searched in the fields: "title" and "abstract" and in the MeSH when available. Filter for Human & English language applied.</i>

	#5	(atrophic scar):ti,ab,kw	329		
	#6	#1 or #2 or #3 or #4 or #5	2771		
	#7	Topical insulin	337		
	#8	insulin	79091		
	#9	(topical insulin):ti,ab,kw	285		
	#10	MeSH descriptor: [Insulins] explode all trees	18426		
	#11	#7 or #8 or #9 or #10	79169		
	#12	#6 and #11	35		
Google Scholar Search Date: 13/05/2025	(post acne scars atrophic OR scar OR post-acne OR scar OR Acne OR Vulgaris) AND "topical insulin"		57	148	<i>Free-text search without date limits. All records retrieved (57 in the initial search; 148 in the updated search) were exported to Covidence and screened in full.</i>
Scopus Search Date: 13/05/2025	(TITLE-ABS-KEY ((post-acne AND scar) OR postacne AND atrophic AND scars) OR TITLE-ABS-KEY (skin AND scar*) AND TITLE-ABS-KEY (topical AND insulin)) AND (LIMIT-TO (LANGUAGE , "English")) AND (LIMIT-TO (EXACTKEYWORD , "Humans") OR LIMIT-TO (EXACTKEYWORD , "Human")) AND (EXCLUDE (DOCTYPE , "ch") OR EXCLUDE (DOCTYPE , "le"))		51	61	<i>All search terms are searched in the fields: "title" and "abstract" (here marked with "TI-ABS"). No thesaurus available. Human, English filter applied.</i>
Total no. of records identified			373	572	<i>The updated search re-ran every strategy from database inception and therefore supersedes, rather than adds to, the initial search. Its 572 records were imported into Covidence (62</i>

*duplicates removed;
510 screened), as
shown in Figure 3 of
the main manuscript.*
