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NAIL PSORIASIS AS A DIFFICULT-TO-TREAT AREA: COMPARATIVE EVIDENCE FOR IL-17 AND IL-23 INHIBITORS

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ABSTRACT

Nail psoriasis is a frequent and clinically relevant manifestation of psoriasis, affecting a substantial proportion of patients with plaque psoriasis and psoriatic arthritis. Despite its limited anatomical extent, nail involvement may cause pain, functional impairment, occupational limitations, psychological distress, and reduced quality of life. It is also strongly associated with psoriatic arthritis, supporting the concept of the nail unit as part of a broader synovio-entheseal disease continuum. Treatment remains challenging because of the slow growth of the nail plate, limited penetration of topical therapies, frequent involvement of both the nail matrix and nail bed, and delayed clinical response compared with cutaneous plaques. Biologic agents targeting the IL-23/IL-17 axis have substantially changed the therapeutic landscape of nail psoriasis. IL-17 inhibitors, particularly ixekizumab, secukinumab, brodalumab, and bimekizumab, generally show rapid and robust improvement in nail outcomes, with several head-to-head and network meta-analytic data sets favoring ixekizumab or bimekizumab for complete nail clearance. IL-23 inhibitors, including guselkumab, risankizumab, and tildrakizumab, also demonstrate clinically meaningful nail improvement, often with favorable long-term safety and durability profiles. However, direct comparative evidence remains limited, heterogeneous, and frequently derived from post hoc analyses or nail subgroups within broader psoriasis or psoriatic arthritis trials. This review summarizes current evidence for IL-17 and IL-23 inhibitors in nail psoriasis, with emphasis on comparative efficacy, kinetics of response, safety, outcome measures, and clinical decision-making.

KEYWORDS

Nail Psoriasis; NAPSI; mNAPSI; Ixekizumab; Secukinumab; Bimekizumab; Brodalumab; Guselkumab; Risankizumab; Tildrakizumab

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1. Introduction

Psoriasis is a chronic immune-mediated inflammatory disease involving the skin, joints, and nails. Nail psoriasis is not a minor cosmetic manifestation, but a high-impact phenotype that may impair manual function, cause pain, reduce quality of life, and indicate a higher probability of psoriatic arthritis. Nail involvement has been reported in up to approximately 50% of patients with cutaneous psoriasis and up to 80% of patients with psoriatic arthritis, with lifetime nail involvement estimated at 80-90% in patients with psoriasis. Isolated nail psoriasis, without concurrent cutaneous or joint involvement, is less frequent but clinically important because diagnosis may be delayed when cutaneous signs are absent (Hwang et al., 2024)(Hwang et al., 2023).

The burden of nail psoriasis derives from both the visibility and functional role of the nail apparatus. Pitting, onycholysis, subungual hyperkeratosis, nail plate crumbling, oil-drop discoloration, leukonychia, splinter hemorrhages, and red spots in the lunula may interfere with daily activities, manual work, social interactions, and self-image. In addition, nail involvement reflects a biologically distinct compartment of psoriatic inflammation, in which the nail matrix, nail bed, distal interphalangeal joint, extensor tendon, and entheseal structures are anatomically and immunologically interconnected (Ji et al., 2021) (Husein-Elahmed & Husein-Elahmed, 2023).

Nail psoriasis is widely regarded as a difficult-to-treat area. Several factors contribute to this difficulty: poor penetration of topical drugs through the nail plate, frequent involvement of both matrix and bed structures, slow nail growth, the requirement for long follow-up to observe complete clearance, and inconsistent inclusion of nail-specific endpoints in pivotal psoriasis trials. These limitations complicate direct therapeutic comparisons and often require extrapolation from post hoc analyses, subgroup analyses, real-world cohorts, and network meta-analyses (Hwang et al., 2024) (Hwang et al., 2023).

The IL-23/IL-17 axis is central to psoriatic inflammation. IL-23 promotes the expansion and survival of Th17 cells and the downstream production of IL-17A, IL-17F, IL-22, IL-21, and TNF-α. Biologic therapies targeting this pathway have transformed the management of moderate-to-severe plaque psoriasis and psoriatic arthritis. Their role in nail psoriasis is increasingly supported by randomized trials, extension studies, post hoc analyses, and real-world evidence, although nail-specific evidence remains less mature than evidence for skin clearance (Bardazzi et al., 2023) (Ji et al., 2021).

This review summarizes current evidence for IL-17 and IL-23 inhibitors in nail psoriasis, with emphasis on comparative efficacy, kinetics of response, nail matrix versus nail bed involvement, safety, durability, and clinical positioning.

2. Methods

This article is a targeted narrative review based on the corpus of publications provided for the manuscript topic. Priority was given to studies reporting nail-specific outcomes, including Nail Psoriasis Severity Index (NAPSI), modified Nail Psoriasis Severity Index (mNAPSI), total NAPSI, Physician's Global Assessment of Fingernail Psoriasis (PGA-F), NAPSI 50/60/75/90/100, mNAPSI 0, and complete nail clearance. Randomized controlled trials, post hoc analyses of phase III/IIIb trials, network meta-analyses, systematic reviews, prospective observational cohorts, and real-world studies were considered.

The review focuses primarily on IL-17 pathway inhibitors: secukinumab, ixekizumab, brodalumab, and bimekizumab and IL-23 inhibitors: guselkumab, risankizumab, and tildrakizumab. Ustekinumab, apremilast, and deucravacitinib are discussed only where relevant as comparators or contextual therapeutic options. Because the included studies differ in trial design, baseline nail severity, scoring system, follow-up duration, comparator, population, and outcome definition, no quantitative synthesis was performed.

3. Nail Psoriasis as a Distinct Therapeutic Challenge

The nail unit is anatomically complex. Nail matrix inflammation produces pitting, leukonychia, red spots in the lunula, and nail plate crumbling, whereas nail bed inflammation leads to onycholysis, oil-drop discoloration, subungual hyperkeratosis, and splinter hemorrhages. This distinction is clinically relevant because matrix and bed disease may respond differently to targeted therapy, as suggested by dermoscopy-guided comparative data (Hwang et al., 2024)(Yan et al., 2025).

The relationship between nail psoriasis and psoriatic arthritis is of particular importance. The nail apparatus is functionally connected to the distal interphalangeal joint through the extensor tendon and entheseal structures. This anatomical relationship supports the concept of a nail-enthesis unit and explains why nail psoriasis may be a clinical marker of musculoskeletal involvement. In this context, effective treatment of nail disease may have implications beyond cosmetic or local symptom control (Ji et al., 2021)(Husein-Elahmed & Husein-Elahmed, 2023).

Clinical trials in nail psoriasis are complicated by slow nail growth. Complete fingernail regrowth may require several months, meaning that early timepoints may underestimate the full effect of a therapy. Conversely, short-term differences in response may still be clinically meaningful when pain, function, or rapid improvement is important. This temporal issue is central when comparing IL-17 inhibitors, which often demonstrate faster improvement, with IL-23 inhibitors, which may show durable responses over longer follow-up (Merola et al., 2025) (Strober et al., 2024).

4. Outcome Measures in Nail Psoriasis

NAPSI and mNAPSI remain the most frequently used instruments in clinical studies. NAPSI divides the nail into quadrants and assesses matrix and bed signs, whereas mNAPSI provides a more detailed severity-weighted evaluation. Complete nail clearance is commonly defined as NAPSI 0 or mNAPSI 0, although some studies use PGA-F 0/1 as a clinically meaningful endpoint. The lack of uniform endpoints across trials remains a major limitation for indirect comparisons (Hwang et al., 2023) (Merola et al., 2025).

The choice of endpoint influences interpretation. NAPSI percentage improvement captures partial response, whereas NAPSI 0 or mNAPSI 0 represents complete clearance. For many patients, complete clearance may be the most meaningful outcome, but it is also harder to achieve and requires longer observation. Network meta-analyses using complete resolution as the endpoint therefore provide clinically relevant but methodologically constrained comparisons, especially when newer agents are not uniformly represented (Husein-Elahmed & Husein-Elahmed, 2023) (Egeberg et al., 2023).

5. Evidence for IL-17 Inhibitors

5.1. Secukinumab

Secukinumab is an IL-17A inhibitor with nail efficacy supported by randomized and real-world data. In the TRANSFIGURE trial, which specifically addressed nail psoriasis, patients treated with secukinumab 150 mg or 300 mg achieved greater reductions in mean NAPSI score at week 16 than placebo. The reported reductions were 37.9% with secukinumab 150 mg, 45.3% with secukinumab 300 mg, and 10.8% with placebo. Longer follow-up in the same evidence base suggested further improvement, with NAPSI percentage decreases reported at week 32 (Hwang et al., 2023) (Ji et al., 2021).

A prospective single-center study of 16 patients with moderate-to-severe psoriasis and nail involvement showed rapid improvement during secukinumab therapy. Mean NAPSI decreased from 45.06 ± 20.39 at baseline to 8.94 ± 13.50 at week 12 and to 5.12 ± 8.52 at week 24. Although limited by sample size and absence of a comparator arm, these data support the rapid nail response that is often attributed to IL-17A blockade (Go et al., 2024).

5.2. Ixekizumab

Ixekizumab is another IL-17A inhibitor with particularly strong evidence in nail psoriasis. In a phase III sub-analysis of Chinese patients with moderate-to-severe psoriasis and special body area involvement, ixekizumab produced significantly greater NAPSI improvement at week 12 than placebo. NAPSI 50 was achieved by 44.4% of patients receiving ixekizumab every 4 weeks and 36.6% receiving ixekizumab every 2 weeks, compared with 14.1% receiving placebo. Among responders who continued ixekizumab every 4 weeks, NAPSI improvements were further increased and sustained through week 60 (Li et al., 2025).

Long-term evidence from UNCOVER-3 reinforces the durability of ixekizumab in nail disease. In that post hoc analysis, 56.9% of patients had nail psoriasis at baseline, and 61.2% of those had significant nail

psoriasis. At week 60, 66.9% of patients with baseline nail psoriasis and 59.1% with significant baseline nail psoriasis achieved complete nail clearance, with the effect sustained through week 264 (Egeberg et al., 2022).

Comparative analyses also favor ixekizumab. A Bayesian network meta-analysis of head-to-head trials reported that ixekizumab had the highest probability of being the best treatment for complete nail resolution among included biologics. A later network meta-analysis at weeks 24–28 and 48–52 similarly found the highest absolute probability of complete nail resolution with ixekizumab: 46.4% at weeks 24-28 and 77.2% at weeks 48-52 (Husein-Elahmed & Husein-Elahmed, 2023) (Egeberg et al., 2023).

5.3. Brodalumab

Brodalumab blocks the IL-17 receptor A and therefore inhibits signaling mediated by several IL-17 family cytokines. In head-to-head data summarized in the systematic review, brodalumab was more effective than ustekinumab for nail outcomes. At week 24, complete resolution of nail psoriasis findings, reported as tNAPSI100, was achieved by 31.6% of brodalumab-treated patients compared with 18.8% of ustekinumab-treated patients. At week 52, tNAPSI100 was achieved by 63.8% and 39.1%, respectively. Safety was comparable between brodalumab and ustekinumab groups in those analyses (Hwang et al., 2023).

Although brodalumab appears effective for nail psoriasis, its comparative evidence base is smaller than that of ixekizumab. Its role may therefore be considered clinically relevant but less extensively characterized, particularly in direct comparisons with IL-23p19 inhibitors.

5.4. Bimekizumab

Bimekizumab selectively inhibits both IL-17A and IL-17F. This dual blockade is of particular interest because IL-17F, although less potent than IL-17A, is present in psoriatic inflammation and may contribute to residual inflammatory activity. Bimekizumab has generated strong comparative data in patients with moderate-to-severe plaque psoriasis and nail involvement (Merola et al., 2025).

In analyses from BE SURE, BE VIVID, BE RADIANT, and extension periods, bimekizumab-treated patients achieved numerically higher rates of concurrent complete skin and nail clearance than active comparators. At the end of comparator-controlled periods, PASI 100 plus mNAPSI 0 was achieved by 45.8% of bimekizumab-treated patients versus 18.3% of adalimumab-treated patients at week 24, 51.1% versus 26.5% for ustekinumab at week 52, and 63.3% versus 36.1% for secukinumab at week 48. Switching from comparators to bimekizumab was associated with increased clearance rates that were sustained long term (Merola et al., 2025).

A separate analysis of scalp, nail, and palmoplantar psoriasis across phase III/IIIb bimekizumab trials and BE BRIGHT reported complete nail resolution rates of 39.8% with bimekizumab versus 24.5% with adalimumab at week 24, 54.0% versus 30.6% with ustekinumab at week 52, and 69.5% versus 52.5% with secukinumab at week 48. Complete clearance of scalp, nail, and palmoplantar psoriasis was sustained through 4 years of bimekizumab treatment, with nail clearance reported at 61.6% (Gisondi et al., 2026).

These findings position bimekizumab as one of the strongest IL-17 pathway agents for patients in whom simultaneous skin and nail clearance is a major therapeutic objective. However, because several analyses are post hoc and use selected trial populations, real-world comparative studies are still needed.

6. Evidence for IL-23 Inhibitors

6.1. Guselkumab

Guselkumab is a monoclonal antibody targeting the p19 subunit of IL-23. In pooled VOYAGE-1 and VOYAGE-2 data summarized in the systematic review, guselkumab-treated patients with nail involvement achieved a 37.5% reduction in mean tNAPSI score at week 16 compared with 0.7% for placebo. At week 24, guselkumab produced a 52.9% reduction in mean tNAPSI, which was comparable to adalimumab at that timepoint (Hwang et al., 2023).

Longer-term real-world data support sustained improvement. In the prospective German multicenter G-EPOSS study, guselkumab provided sustained effectiveness through week 76 in routine clinical practice. Among patients with baseline NAPSI ≥1, NAPSI 0 was achieved by 52.2% at week 76. This study also reported improvements in quality of life, sexuality-related impairment, and perceived stigmatization, emphasizing the broader patient-centered relevance of effective psoriasis treatment (Gerdes et al., 2025).

In a three-year real-world analysis of 400 patients treated with IL-17, IL-12/23, and IL-23 inhibitors, guselkumab provided the most sustained improvements in palmoplantar and nail involvement, while ixekizumab performed particularly well for PASI 100 and scalp psoriasis. Guselkumab and secukinumab also showed the highest drug survival rates in that cohort, whereas adverse events were more frequently reported with IL-17 inhibitors (Demirbas et al., 2025).

6.2. Risankizumab

Risankizumab is another IL-23p19 inhibitor with evidence from psoriatic arthritis and plaque psoriasis cohorts. In KEEPsAKE-1, which included patients with active psoriatic arthritis, risankizumab demonstrated superiority to placebo for nail outcomes at week 24. The reduction in mean mNAPSI score was 54.1% with risankizumab compared with 33.7% with placebo, with comparable adverse event and serious adverse event incidence between treatment arms (Hwang et al., 2024) (Kristensen et al., 2022).

A pooled analysis across GRAPPA domains in KEEPsAKE 1 and 2 showed that risankizumab provided durable improvement across psoriatic arthritis domains through week 100, including nail psoriasis. This is relevant because nail disease is often considered alongside peripheral arthritis, enthesitis, dactylitis, and axial symptoms when choosing therapy for patients with psoriatic disease (Coates et al., 2025).

In the LIMMitless trial, among 327 patients with nail psoriasis at baseline, more than two-thirds achieved NAPSI 0 by week 256, and mean NAPSI improvement from baseline exceeded 81%. These long-term data suggest that risankizumab may provide durable nail clearance in patients who remain on therapy, although cross-trial comparisons with IL-17 inhibitors should be interpreted cautiously (Strober et al., 2024).

6.3. Tildrakizumab

Tildrakizumab is an IL-23p19 inhibitor with more limited nail-specific evidence than guselkumab or risankizumab. In the TILOT prospective study summarized in a JAAD clinical review, 411 patients with psoriasis and nail involvement showed a 72.7% reduction in PGA-F at week 52. However, the absence of a randomized comparator arm limits direct interpretation (Hwang et al., 2024).

Retrospective observational data also suggest improvement. In one study of 18 patients with nail psoriasis, tildrakizumab was associated with a 29.3% reduction in mean NAPSI at week 12 and a 67.6% reduction at week 28. In another small study of eight patients, mean mNAPSI decreased by 40.7% at week 4 and 90.2% at week 20. Statistical significance was not reported in these studies, so the findings should be considered supportive rather than definitive (Hwang et al., 2023).

In a 36-week real-world multicenter Italian study from Emilia-Romagna, tildrakizumab improved PASI, BSA, DLQI, and NAPSI during follow-up. Smoking, BMI ≥30, three or more comorbidities, prior systemic or biologic therapy, psoriatic arthritis, and difficult-to-treat areas did not significantly influence PASI or NAPSI reduction in multivariable analysis (Bardazzi et al., 2023).

6.4. Comparative Data Among IL-23 Inhibitors

Direct comparative IL-23 evidence remains limited. In studies comparing guselkumab, risankizumab, and tildrakizumab, nail outcomes were broadly comparable at later timepoints. In a prospective study by Trovato et al., no statistically significant differences in percentage reduction of mean NAPSI were observed among the three agents at week 52. In a retrospective study by Megna et al., early reductions at week 4 were numerically 50.0% with tildrakizumab, 43.8% with risankizumab, and 36.0% with guselkumab; however, reductions were comparable at weeks 16 and 28, and no serious adverse events were reported (Hwang et al., 2023) (Megna et al., 2022).

These findings suggest that available IL-23 inhibitors are effective for nail psoriasis, but current data do not robustly establish superiority of one IL-23 inhibitor over another. Larger, adequately powered, nail-specific comparative trials are still required.

7. IL-17 Versus IL-23 Inhibitors: Comparative Interpretation

The available comparative evidence suggests a general pattern: IL-17 inhibitors tend to show faster and often stronger early nail responses, while IL-23 inhibitors provide sustained improvement with favorable long-term safety and drug survival profiles. However, this interpretation must be cautious because studies differ in baseline nail severity, scoring instruments, population type, trial design, and follow-up duration.

A 24-week prospective dermoscopy-guided real-world cohort directly compared secukinumab, ixekizumab, and guselkumab in 65 adult patients with plaque psoriasis and dermoscopy-confirmed nail involvement. At week 24, total NAPSI improvements were 62.7% with secukinumab, 64.6% with ixekizumab, and 53.7% with guselkumab. NAPSI 60 was achieved by 44%, 70%, and 30%, respectively. Domain-specific analysis suggested that secukinumab performed best for nail matrix disease, whereas ixekizumab showed the strongest response for nail bed pathology. No serious adverse events occurred in any group (Yan et al., 2025).

Network meta-analytic evidence also supports the strength of IL-17 inhibition for complete nail clearance. One Bayesian network meta-analysis found that ixekizumab had the highest probability of being

the best treatment for complete nail resolution among included biologics. Another network meta-analysis found the highest absolute probability of complete nail resolution with ixekizumab at both weeks 24-28 and weeks 48-52. However, the latter analysis also placed brodalumab and bimekizumab among the highest-ranked therapies at earlier timepoints, and several newer agents were not uniformly represented across all analyses (Husein-Elahmed & Husein-Elahmed, 2023) (Egeberg et al., 2023).

Bimekizumab deserves separate consideration because it is not simply an IL-17A inhibitor but a dual IL-17A/F inhibitor. In head-to-head phase III/IIIb analyses, bimekizumab achieved higher rates of concurrent complete skin and nail clearance than adalimumab, ustekinumab, and secukinumab during comparator-controlled periods. These data suggest that dual IL-17A/F inhibition may offer particular value when complete clearance across multiple psoriatic domains is the therapeutic target (Merola et al., 2025).

The clinical interpretation is therefore not simply "IL-17 is better than IL-23" or "IL-23 is safer than IL-17." Rather, treatment selection should be individualized. IL-17 inhibition may be preferable when rapid nail response, high probability of complete clearance, substantial nail bed or matrix disease, or concomitant axial/entheseal symptoms are key considerations. IL-23 inhibition may be attractive when durable disease control, longer dosing intervals, favorable safety profile, drug survival, and broad long-term management of plaque psoriasis are prioritized.

8. Other Systemic and Oral Options Relevant to Nail Psoriasis

Although this review focuses on IL-17 and IL-23 inhibitors, other systemic options provide clinical context. Apremilast, an oral PDE-4 inhibitor, may be useful for patients in whom biologics are not approved, accepted, or preferred. In a retrospective real-world study of 55 adult patients with psoriasis limited to the nails, apremilast 30 mg twice daily significantly reduced NAPSI from 44.7 ± 26.9 to 19.03 ± 14.2 and DLQI from 14.5 ± 5 to 7.2 ± 4.1 after 6 months; no patients discontinued treatment because of side effects (Iorizzo et al., 2025).

Deucravacitinib, an oral selective TYK2 inhibitor, affects IL-23, IL-12, and type I interferon signaling. In a 24-week real-world Japanese study, PGA-F 0/1 was achieved by 17% and 43% of patients at weeks 16 and 24, respectively. In a 52-week real-world study, PGA-F 0/1 was achieved by 67% of patients with baseline PGA-F ≥ 2 who remained evaluable at week 52, with no severe or fatal adverse events reported (Hagino et al., 2024) (Hagino et al., 2025).

These oral agents do not replace biologics as the most potent therapies for severe nail psoriasis, but they may be clinically relevant for selected patients, particularly those with limited disease, contraindications to biologics, preference for oral therapy, or moderate involvement requiring systemic intervention.

9. Safety Considerations

The safety profiles of IL-17 and IL-23 inhibitors in nail psoriasis studies are generally consistent with their known safety profiles in plaque psoriasis and psoriatic arthritis. In systematic review data, common adverse events reported with IL-17 inhibitors included injection site reactions, nasopharyngitis, upper respiratory tract infections, and diarrhea. Injection site reactions were more frequent with ixekizumab than placebo and were also higher than ustekinumab in IXORA-S. Serious adverse events were rare across IL-17 inhibitor trials (Hwang et al., 2023).

For IL-23 inhibitors and ustekinumab, common adverse events included nasopharyngitis, upper respiratory tract infections, headache, and arthralgia, often at rates similar to placebo or comparator groups. Comparative IL-23 real-world studies found no major differences in adverse event rates among guselkumab, risankizumab, and tildrakizumab, and serious adverse events were uncommon (Hwang et al., 2023).

Safety interpretation should incorporate comorbidities and patient phenotype. IL-17 inhibitors may require particular attention in patients with inflammatory bowel disease or recurrent mucocutaneous candidiasis, whereas IL-23 inhibitors may be preferred when long-term tolerability and dosing convenience are dominant considerations. Conversely, when rapid clearance is required, the higher early efficacy of IL-17 inhibition may outweigh these concerns in appropriately selected patients.

10. Limitations of Current Evidence

Several limitations should be emphasized. First, nail psoriasis is frequently assessed as a secondary or exploratory endpoint in broader plaque psoriasis or psoriatic arthritis trials rather than as a primary endpoint. Second, studies use different scoring systems, including NAPSI, mNAPSI, total NAPSI, PGA-F, NAPSI 50/60/100, and mNAPSI 0, limiting direct comparison. Third, many analyses are post hoc and include only patients with baseline nail involvement who entered extension studies, which may introduce selection bias.

Fourth, baseline nail severity varies substantially across trials. Patients with mild nail disease may reach complete clearance more easily, whereas those with severe matrix and bed disease may require longer follow-up. Fifth, complete nail clearance is strongly influenced by duration of observation because nails improve more slowly than skin plaques. Sixth, real-world studies may better reflect clinical practice but are limited by small samples, nonrandomized design, potential confounding, and variable prior biologic exposure.

Finally, few studies directly compare IL-17 and IL-23 inhibitors with nail-specific endpoints. The available evidence suggests relative advantages of IL-17 inhibition for rapid and complete nail clearance, but this should not be interpreted as universal superiority for all patients.

11. Future Directions

Future studies should prioritize nail-specific trial designs with standardized inclusion criteria and endpoints. Ideally, trials should stratify patients by matrix- versus bed-predominant disease, baseline NAPSI or mNAPSI severity, number of involved nails, psoriatic arthritis status, prior biologic exposure, and occupational/manual burden. Dermoscopy and high-frequency ultrasound may help phenotype nail disease more precisely and may identify patients more likely to respond to IL-17 or IL-23 pathway inhibition.

Head-to-head trials comparing ixekizumab, secukinumab, bimekizumab, guselkumab, risankizumab, and tildrakizumab with nail-specific primary endpoints would be especially valuable. Long-term follow-up should assess complete clearance, relapse after withdrawal, durability of response, patient-reported outcomes, work productivity, pain, and progression to psoriatic arthritis.

14. Conclusions

Nail psoriasis is a high-impact and difficult-to-treat manifestation of psoriatic disease. Its clinical importance extends beyond visible nail changes because it may impair function, reduce quality of life, and signal an increased risk of psoriatic arthritis. Current evidence supports biologic therapy targeting the IL-23/IL-17 axis in patients with clinically significant nail disease.

IL-17 inhibitors generally show rapid and robust nail responses, with ixekizumab supported by strong complete-clearance data and bimekizumab demonstrating high rates of simultaneous skin and nail clearance in head-to-head phase III/IIIb analyses. Secukinumab and brodalumab also show meaningful nail efficacy. IL-23 inhibitors, including guselkumab, risankizumab, and tildrakizumab, provide sustained nail improvement and may offer favorable long-term tolerability and drug-survival advantages.

The current evidence favors an individualized approach rather than a rigid class-based hierarchy. IL-17 inhibitors may be preferred when rapid or complete nail clearance is the dominant therapeutic goal, whereas IL-23 inhibitors may be attractive when durability, dosing convenience, and long-term safety are prioritized. Further nail-specific head-to-head trials are needed to define the optimal biologic strategy for matrix- and bed-predominant nail psoriasis.

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