Treatment of Skin Disease

Comprehensive Therapeutic Strategies

FIFTH EDITION

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Every four years, as we plan the next edition of *Treatment of Skin Disease*, the editors ask ourselves these questions: Do we need another edition? Has enough changed in the practice of dermatology to justify all the work needed for another edition? Thanks to extraordinary advances in our specialty, the answer has always been an emphatic *yes*.

The last four years has seen dramatic changes in the treatment of common dermatologic conditions like psoriasis and atopic dermatitis. Anti-IL-17 antibodies were only investigational four years ago, and now two, secukinumab and ixekizumab, are approved and a third antibody to the IL-17 receptor, brodalumab, has also been approved and is about to enter the market for psoriasis. Pure anti-IL-23 antibodies were only in experimental stages based on the earlier success of ustekinumab which blocks both IL-23 and IL-12. Guselkumab has now been released and tildrakizumab has completed phase III trials and will hopefully be approved in the coming months. Another anti-IL-23 antibody, risankizumab, is already in phase III trials and has very promising results in phase II, and other anti-IL-23 antibodies are already in development for psoriasis. Dupilumab, an anti-IL-4/IL-13 antibody has just been approved for moderate to severe atopic dermatitis, and crisaborole, a topical phosphodiesterase 4 inhibitor has been introduced for the treatment of mild to moderate atopic dermatitis. Tofacitinib, a janus kinase inhibitor, has shown substantial efficacy in psoriasis and atopic dermatitis, though regulators have not allowed approval for those diseases thus far. Because the drug is available for rheumatoid arthritis in the US, it has been used to treat other inflammatory skin diseases like alopecia areata and vitiligo with striking success.
Treatment of less common conditions has advanced as well. Four years ago, we were just beginning to use the first hedgehog inhibitor for catastrophic basal cell carcinomas. We now have a second oral hedgehog inhibitor, sonidegib. We also have many new uses for drugs introduced earlier. The best example is the approval of adalimumab for the treatment of hidradenitis. Dermatologists were only starting to prescribe omalizumab for chronic idiopathic urticaria, and that treatment, first approved for asthma, is now well established for chronic urticaria.

Advances in the treatment of rare diseases have been extraordinary as well. Sildenafil is now commonly used for lymphatic malformations, and topical rapamycin is commonly used for facial angiofibromas. In some countries, afamelanotide has been approved for the treatment of erythropoietic protoporphyria.

Off label uses of many old therapies have also been tried for many dermatologic diseases and are covered well in the updated versions of our chapters. Many of the drugs approved for adults are also being studied in children, and hopefully we will see many new therapy approvals for pediatric indications.

The commercial successes of multiple biologic, oral and topical therapies for dermatologic indications, has sparked a tremendous amount of research and innovation in our field. As we send this edition to the printer, new oral agents are being studied for inflammatory skin diseases. Both topical and oral janus kinase inhibitors including ruxolitinib, baricitinib, and tofacitinib are being studied for alopecia areata, vitiligo, psoriasis, and atopic dermatitis. Investigation of phosphodiesterase inhibitors for itch and for other inflammatory skin conditions are underway. Creams that change the bacterial flora of conditions like atopic dermatitis are also in development, and numerous biologic therapies like nemolizumab for itch and anti-IL-13 antibodies like lebrikizumab and tralokinumab are being studied for atopic dermatitis.

Every chapter of this new edition has been carefully revised and updated with the latest innovations. As you read on, it will become clear how profoundly the rapid pace of progress is impacting on the benefits we can offer our patients - this is such an exciting time to be practising dermatology.

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