Welcome to issue 45 of Psoriasis Research Review.

First up we review a study investigating the effects of systemic and biological agents on intima-media thickness and discover that such treatment tends to reduce this parameter. Following on, we report on the findings of the VOYAGE 1 trial demonstrating the long-term efficacy of guselkumab for the treatment of moderate-to-severe psoriasis. Other topics covered in this issue include the effects of maternal psoriasis on pregnancy and birth outcomes, the comparative efficacy of brodalumab for moderate-to-severe psoriasis, biologics in psoriatic patients with viral hepatitis, and the risk of dementia associated with psoriasis.

We hope you find the latest issue of Psoriasis Research Review stimulating reading and look forward to any feedback.

Kind Regards,

Clinical Associate Professor Kurt Gebauer
kurt.gebauer@researchreview.com.au

Studying the effect of systemic and biological drugs on intima-media thickness in patients suffering from moderate and severe psoriasis

Authors: Martínez-López A et al.

Summary: This prospective study assessed the effect of systemic and biological drugs on carotid intima-media thickness in 53 patients with moderate-to-severe psoriasis. Baseline measurements of lipid and glucose metabolism, and carotid intima-media thickness measured via sonography were undertaken and repeated after 8 months of treatment with systemic or biological agents. Intima-media thickness tended to decrease in patients receiving biological drugs, but not significantly (p = 0.086). Patients receiving methotrexate and anti-IL-12/23 exhibited a significant decrease in their intima-media thickness levels (p = 0.045 and p = 0.010, respectively). Glycaemia and insulin levels also decreased in patients treated with TNF-alpha inhibitors and ustekinumab.

Comment: Comorbidities with psoriasis have been an ongoing issue in dermatology for the last ten years. It is quite accepted that psoriatic patients have increased cardiac risk factors. Data that shows effectively treating psoriasis leads to an improvement in these risk factors is still quite scarce. This is a Spanish study of only 53 patients who had moderate-to-severe psoriasis. The impression was that carotid intima-media thickness is improved when the psoriasis is treated with biologic drugs. P=0.045 for methotrexate and p = 0.010 for anti-IL-12/23. This study also showed improvement in glycaemia and insulin levels with TNF-alpha inhibitors. The results were not statistically significant (p = 0.086), however, they were suggestive.


Abstract

Long-term efficacy of guselkumab for the treatment of moderate-to-severe psoriasis: Results from the phase 3 VOYAGE 1 trial through two years

Authors: Griffiths CEM et al.

Summary: The efficacy of continuous treatment with the IL-23 blocker, guselkumab, was investigated over 2 years in the phase 3 VOYAGE 1 trial in patients with moderate-to-severe psoriasis randomised to placebo, guselkumab, or adalimumab. At week 16, patients randomised to placebo crossed over to guselkumab and at week 52 all patients received open-label guselkumab. Pre-specified analyses revealed PASI 75, PASI 90, IGA 0/1, and IGA 0 rates of 94.8%, 82.1%, 49.0%, 82.4%, and 53.8%, respectively, at week 100. I would recommend getting your Janssen representative to deliver you a copy if you are a prescriber of biologics. The blockade of the IL-23 pathway seems to be very good at improving chronic extensive plaque psoriasis.

Reference: J Drugs Dermatol. 2018;17(8):826-32

Abstract
### Effect of maternal psoriasis on pregnancy and birth outcomes: A population-based cohort study from Denmark and Sweden

**Authors:** Bröms G et al.

**Summary:** A cross-national population-based cohort study, performed using prospectively collected data on singleton births in women with psoriasis from Denmark and Sweden, examined the effect of maternal psoriasis and its severity on the risk of adverse pregnancy and birth outcomes. Between April 2007 and December 2012 a total of 8097 births were identified in 6103 women with psoriasis and 964 births in 753 women with psoriatic arthritis. Data from over 943,000 pregnancies without psoriasis served as a reference. The analysis revealed increased rates of gestational diabetes (2.7% vs 1.8%; crude OR 1.45; 95% CI 1.26-1.68), gestational hypertension (2.9% vs 2.3%; crude OR 1.23; 95% CI 1.08-1.41), pre-eclampsia (4.0% vs 3.3%; crude OR 1.23; 95% CI 1.09-1.38), and emergency (10.3% vs 8.6%; crude OR 1.23; 95% CI 1.14-1.33) and emergency (10.7% vs 9.3%; OR 1.16; 95% CI 1.08-1.25) caesarean delivery in women with psoriasis. The risks were higher for women with severe psoriasis, who also had an increased risk of pre-term birth and low birth weight.

**Comment:** This is an interesting article that addresses a significant clinical question. All sponsored clinical trials preclude pregnancy and the consent process ensures that the risk of pregnancy is severely minimised with two effective forms of birth control required. Young women who have had extensive psoriasis require information about the risk of pregnancy. This Scandinavian study recorded a total of 8097 births in 6103 women with psoriasis. A further 964 births in 753 women with psoriatic arthritis were also analysed. Increased risks of gestational diabetes, gestational hypertension, pre-eclampsia, elective and emergency caesarean delivery were found. These risks were higher in women with severe psoriasis. The severe psoriasis patients also had a higher chance of pre-term birth and low birth weight. This paper would suggest that women with severe psoriasis should be cared for by a unit that is skilled and equipped with high-risk pregnancies.

**Reference:** Acta Derm Venereol. 2018;98(8):726-34

### The comparative efficacy of brodalumab in patients with moderate-to-severe psoriasis: a systematic literature review and network meta-analysis

**Authors:** Sawyer L et al.

**Summary:** This network meta-analysis of 54 RCTs reporting induction phase responses evaluated the relative efficacy of brodalumab compared with approved biologic therapies and apremilast for moderate-to-severe psoriasis. The most efficacious therapies, based on PASI 100 response, were brodalumab 210 mg every two weeks (Q2W) and ixekizumab. Brodalumab 210 mg Q2W was significantly more efficacious than brodalumab 140 mg Q2W, adalimumab, apremilast, etanercept, infliximab, secukinumab, and ustekinumab. PASI 50, 75, and 90 and all sensitivity analyses were consistent with the PASI 100 findings.

**Comment:** It is expected that brodalumab will be coming to the Australian market in the next 12-24 months. This is an extensive review and meta-analysis of this medication. A large number of studies were included. They concluded after the analysis of these papers that the induction phase efficacy of brodalumab is similar to ixekizumab, etrolizumab is a drug that we have been utilising for the last 2 years or so. Brodalumab is superior to other therapies including anti-TNF, apremilast, secukinumab and ustekinumab.

**Reference:** J Dermatol Treat. 2018;29(6):557-68

### Safety of biologic agents for psoriasis in patients with viral hepatitis

**Authors:** AIMutai N and Abouzaid HA

**Summary:** These authors evaluated the safety and effectiveness of biologics for moderate-to-severe psoriasis in 39 patients with concomitant chronic viral hepatitis (chronic inactive and occult disease, with no clinical signs and/or lab indication of active liver disease) treated with biologic agents for ≥24 weeks. Among the cohort, there was no evidence of viral reactivation until the last available lab investigation results, taken 3 months after stopping the medication and no evidence of signs or symptoms of liver failure.

**Comment:** I do regularly test for abnormalities in liver function in patients on systemic therapy. The younger dermatological cohort has been trained to perform a larger number of investigations prior to prescribing systemic therapy. With travel to high risk areas, as well as behaviour patterns in the community that make the risk of infection more likely, viral hepatitis’ are not uncommon in our patient cohort. This is a small study of 39 patients only. There was no evidence of viral reactivation or chronic hepatitis B or C in this treatment group.

**Reference:** J Dermatolog Treat. 2018;29(6):553-56

### Psoriasis is not associated with cognition, brain imaging markers and risk of dementia: the Rotterdam Study

**Authors:** Pezzolo E et al.

**Summary:** In the Rotterdam Study, 318 psoriatic (28% systemic/UV treatment) and 9678 non-psoriatic participants (mean age 66.1 years, 58% women) were selected and cognition, MRI markers and dementia risk compared between the groups. There were no differences in cognitive test scores and volumetric, microstructural, focal measures on brain MRI between psoriatic and non-psoriatic participants. Psoriasis was not associated with mild cognitive impairment (adjusted OR 0.87; 95% CI 0.53-1.43). A total of 810 incident dementia cases (15 among psoriasis patients) occurred during 115,000 person-years of follow-up. Psoriasis was associated with a lower risk of developing dementia (adjusted HR 0.50; 95% CI 0.28-0.91) after adjusting for confounders.

**Comment:** Over the years, we have been bombarded with all sorts of comorbidities associated with having severe psoriasis. This is a unique study that looks at cognitive testing and the risk of dementia. 318 patients with psoriasis were compared to 9678 non-psoriatic patients. There was no difference in these markers for dementia. For once we have a study that shows psoriasis does not lead to more of a particular comorbidity.

**Reference:** J Am Acad Dermatol. 2018;Aug 6 [Epub ahead of print]

---

**Kindly Supported by**

---

**www.researchreview.com.au**

**a RESEARCH REVIEW publication**
See approved Product Information before prescribing. Approved product information is available here.


PBS Information: Section 85 Authority Required for the treatment of severe chronic plaque psoriasis, active ankylosing spondylitis and severe psoriatic arthritis. Refer to PBS Schedule for full Authority information.

‘I am so much more than my psoriasis’

Cosentyx patient

Cosentyx improved psoriasis on average by 90% through 5 years. Mean improvement in mean absolute PASI from baseline to Year 5 was 90.1%.

www.researchreview.com.au a RESEARCH REVIEW publication
High-fat diet exacerbates early psoriatic skin inflammation independent of obesity: Saturated fatty acids as key players

Authors: Herbert H et al.

Summary: These authors uncovered dietary saturated fatty acids as major risk factors for the amplification of skin inflammation, independent of obesity-related parameters such as fat mass extension, glucose homeostasis and adipokine levels in a cohort of psoriasis vulgaris patients. In this group, free fatty acid serum levels were found to be the only obesity-associated parameter affecting psoriatic disease severity. The critical role of free fatty acids was confirmed in studies of mice with high-fat diet-induced obesity with psoriasisiform inflammation. Furthermore, increasing the levels of free fatty acids in healthy, lean mice was sufficient to induce an exacerbation of psoriasisiform inflammation.

Comment: I have always been fascinated in what actually causes the induction of psoriasis. This is a German article that looks at chronic pro-inflammatory conditions. Diet and fatty acids were shown to be a major risk factor for the initiation of skin inflammation. This was independent of obesity-related parameters such as fat mass extension, adipokine levels and glucose homeostasis. An increase of free fatty acids in healthy, lean mice was sufficient to induce an exacerbation of psoriasisiform inflammation. These fatty acids induce myeloid cells to an increased inflammatory response. This finding opens a potential way of trying to reduce your chances of developing inflammatory psoriasis.


Abstract

A prospective 52-week randomized controlled trial of patient-initiated care consultations for patients with psoriasis

Authors: Khoury LR et al.

Summary/Comment: An interesting article out of Scandinavia. Patients were given the option of attending the dermatology clinic once a year at a time of their choosing. The care of these patients was compared to standard dermatological care with patients who asked to come in for a routine consultation every 12-16 weeks. 150 patients were included of which 58.0% were treated with biologics, 37.3% with methotrexate and 4.7% with acitretin. After a year there was no deleterious effects. This would lead to increased efficiencies of the dermatologist. The patient-initiated visit once a year was more likely to be kept than the standard consultation at 3-4 monthly intervals. I did present in a previous series of reviews a study that suggested that patients need to be reviewed 4-6 weeks after their first consultation to enhance adherence to therapy and improve clinical outcomes. It may well be that the Scandinavians are a more sophisticated patient group, as this study suggests the opposite. A quirky study that has been selected because it makes me think about how we deal with our patients, follow up and investigations. This paper would suggest that seeing patients less has no deleterious effects. This would lead to increased efficiencies of the dermatologist.


Abstract

Efficacy and safety of risankizumab in moderate-to-severe plaque psoriasis (UltIMMa-1 and UltIMMa-2): results from two double-blind, randomised, placebo-controlled and ustekinumab-controlled phase 3 trials

Authors: Gordon KB et al.

Summary: The replicate UltIMMa-1 and UltIMMa-2 phase 3 randomised, double-blind trials aimed to assess the efficacy and safety of risankizumab compared with placebo or ustekinumab in patients ≥18 years of age with moderate-to-severe plaque psoriasis. The trials were undertaken at 139 international sites, including Australia. In both trials, patients received 150 mg risankizumab, 45 mg or 90 mg ustekinumab (weight-based per label), or placebo. At week 16, placebo recipients switched to 150 mg risankizumab, while other patients continued their originally randomised treatment. Study drug was administered subcutaneously at weeks 0 and 4, and at weeks 16, 28, and 40. Primary endpoints were PASI 90 and PGA 0/1 at week 16. In UltIMMa-1, PASI 90 was achieved by 229 (75.3%) risankizumab recipients versus five (4.9%) placebo recipients (placebo-adjusted difference 70.3%; 95% CI 64.0-76.7) and 42 (42.0%) ustekinumab recipients (ustekinumab-adjusted difference 33.5%; 95% CI 22.7-44.3; p < 0.0001 vs placebo and ustekinumab) at week 16. In UltIMMa-1, sPGA 0/1 was achieved by 267 (87.8%) risankizumab recipients versus eight (7.8%) placebo recipients (placebo-adjusted difference 79.9%; 95% CI 73.5-86.9) and 63 (63.0%) ustekinumab recipients (ustekinumab-adjusted difference 25.1%; 95% CI 15.2-35.0; p < 0.0001 vs placebo and ustekinumab) at week 16. In UltIMMa-2, PASI 90 was achieved by 220 (74.8%) risankizumab recipients versus two (2.0%) placebo recipients (placebo-adjusted difference 72.7%; 95% CI 66.8-78.2) and 47 (47.5%) ustekinumab recipients (ustekinumab-adjusted difference 27.6%; 95% CI 16.7-38.5; p < 0.0001 vs placebo and ustekinumab). In UltIMMa-2, 246 (83.7%) risankizumab recipients versus five (5.1%) placebo recipients (placebo-adjusted difference 78.5%; 95% CI 72.4-84.5) and 61 (61.6%) ustekinumab recipients achieved sPGA 0/1 at week 16 (ustekinumab-adjusted difference 22.3%; 95% CI 12.0-32.5; p < 0.0001 vs placebo and ustekinumab). All treatment groups exhibited similar treatment-emergent adverse event profiles and no unexpected safety findings occurred.

Comment: Risankizumab is a new drug that will be coming to the Australian market in the next 12-24 months. This is a review of the pivotal studies. I would recommend getting a copy of this paper and reading it thoroughly. This is a fascinating medication that will be very helpful to our patients. It is an Abbvie product and their representative would almost certainly be delighted to provide a copy of the paper to those who wish to read it in greater depth.

Reference: Lancet 2018;392(10148):650-61

Abstract

The relationship between clinical characteristics including presence of exposed lesions and health-related quality of life (HRQoL) in patients with psoriasis: analysis from the nationwide epidemiologic study for psoriasis in Korea (EPI-PSODE study)

Authors: Youn SW et al.

Summary/Comment: This is a Korean study, which assesses psychological aspect and QoL in 1260 adult patients with psoriasis. If we look at the data, those patients with a DLQI >5 (n = 990) were younger, had an earlier onset of psoriasis, and scored higher on the PASI, BSA and PASE assessments. They also had higher psoriatic arthritis screening and evaluation results. Having psoriasis within exposed areas (n = 871) was associated with the same findings as a poor DLQI. Additionally, a drinking and smoking history was also relevant. Clinically I take this to read that my younger patients who smoke and drink with exposed psoriasis as well as severe psoriasis will have much more psychological overlay and will need to be more carefully screened for depression etc.


Abstract

Australian Research Review subscribers can claim CPD/CME points for time spent reading our reviews from a wide range of local medical and nursing colleges. Find out more on our CPD page. 

Research Reviews are prepared with an independent commentary from relevant specialists. To become a reviewer please email us. 

Disclaimer: This publication is not intended as a replacement for regular medical education to assist in the process. The reviews are a summarised interpretation of the published study and reflect the opinion of the writer rather than those of the research group or scientific journal.

Research Review Australia Pty Ltd is an independent Australian publisher. Research Review receives funding from a variety of sources including Government Dept., health product companies, insurers and other organisations with an interest in health care. Journal content is created independently of sponsor companies with assistance from leading local specialists. 

Privacy Policy: Research Review will record your email details on a secure database and will not release them to anyone without your prior approval. Research Review reserves the right to inspect, update or delete your details at any time. 

© 2018 RESEARCH REVIEW