

Academic Projects in Dermatology at the Department of Dermatology, University Hospital of Northern Norway, Tromsø

DAGFINN MOSENG

Department of Dermatology, University Hospital of Northern Norway, Tromsø, Norway. E-mail: dagfinn.moseng@unn.no



Being a small department, with only 6–7 dermatologists and 4 interns, we are in a challenging situation with a heavy clinical workload; however, in the last 5 years we have established academic research projects funded by grants from our regional health authorities. Our research has focused mainly on psoriasis and hidradenitis suppurativa (HS).

Psoriasis

For years, the Tromsø population-based investigation has offered the general public the opportunity to have medical examinations and answer questions about their health. We have participated in this investigation with questions on dermatological issues. This has led to projects on the epidemiology of psoriasis in our region (1), on metabolic disease and psoriasis (2, 3), and on the epidemiology of HS and comorbidities.

There is an ongoing randomized controlled trial (RCT) of vitamin D substitution vs. placebo in patients with psoriasis who have low vitamin D levels due to the dark winter season in the north.

Hidradenitis suppurativa

In 2012 we established the Scandinavian Registry for HS (HISREG) (4) as a basis for determining the epidemiology and efficacy of treatment of the disease. The results have been presented at the European Academy of Dermatology and Venereology (EADV) congress, most recently in Geneva. We are working to expand the registry, and in due course, we will present further results.

Current clinical studies

- Proof of concept study on the effect of botulinum toxin type B on HS.
- Wound healing after CO₂ laser surgery of patients with HS, comparing portable negative pressure vacuum therapy with conservative treatment.

Other projects in hidradenitis suppurativa

- Genetic analysis of families with severe HS-like phenotypes.
- Analysis of data from HISREG.
- Studies on pathophysiology and inflammation in HS.

Naevi and melanoma

- Ongoing RCT project: “Naevus doctor” – clinical decision support for general practitioners in diagnosis of skin cancer based on dermatoscopic images.

Hyperhidrosis

- Primary hyperhidrosis: Currently ongoing treatment with microinjections of botulinum toxin in all skin areas with and without anaesthesia. Effect measurements based on the Dermatology Life Quality Index (DLQI) and duration of effect. Follow-up for 5–10 years. Developing new techniques for treatment of extremities with sedative methods.

Other projects

- Characterization of inflammatory biomarkers in Merkel cell carcinoma.
- Clinical studies of interleukin (IL) inhibitors in HS and psoriasis.

PhDs and postdoctoral candidates in the last 5 years

Grimstad Ø. On certain toll receptors in dermatology.

Danielsen K. Epidemiology of psoriasis and comorbidity of metabolic disease.

Schopf T. Telemedicine and atopic dermatitis: treatment follow-up by telemedical consultations.

Jenssen M. Vitamin D and psoriasis in the northern hemisphere.

Our publications in 2016

- Daniesen K, Wilsgaard T, Olsen AO, Furberg AS. Overweight and weight gain predict psoriasis development in a population-based cohort. *Acta Derm Venereol* 2017; 97: 332–339.
- Bremnes ØM, Grimstad Ø, Bremnes KE. En kvinne med feber, røde øyne og utbredt utslett. *Tidsskr Nor Laegeforen* 2016; 136: 1731–1734 (in Norwegian).
- Gulliver K, Zouboulis C, Prens E, Jemec GB, Tzellos T. Evidence-based approach to the treatment of hidradenitis suppurativa/acne inversa, based on the European guidelines for hidradenitis suppurativa. *Rev Endocr Metab Disord* 2016; 17: 343–351.
- Grimstad Ø, Ingvarsson G. Carbon dioxide laser treatment using methylene blue-assisted sinus tract identification in hidradenitis suppurativa. *Dermatol Surg* 2016; 42: 1303–1304.
- Foss OA, Mjones P, Fismen S, Christensen E. Is there a relationship between the stratum corneum thickness and that of the viable parts of tumour cells in basal cell carcinoma? *J Skin Cancer* 2016; 2016: 6146091.
- Simpson MR, Rø AD, Grimstad Ø, Johnsen R, Storø O, Øien T. Atopic dermatitis prevention in children following maternal probiotic supplementation does not appear to be mediated by breast milk TSLP or TGF-beta. *Clin Transl Allergy* 2016; 6: 27.
- Grimstad Ø. Tumor necrosis factor and the tenacious. *JAMA Dermatol* 2016; 152: 557.
- Christensen E, Mjones P, Grimstad Ø, Rørdam OM, Foss OA. Diagnostic accuracy in subtyping basal cell carcinoma by clinical diagnosis com-

- pared with punch biopsy. *Acta Derm Venereol* 2016; 96: 862–863.
- Braun R, Dotterud LK. Occupational skin diseases from 1997 to 2004 at the Department of Dermatology, University Hospital of Northern Norway (UNN): an investigation into the course and treatment of occupational skin disease 10–15 years after first consultation with a dermatologist. *Int J Circumpolar Health* 2016; 75: 30100.
- Schlipf NA, Vahlquist A, Teigen N, Virtanen M, Dragomir A, Fismen S, et al. Whole-exome sequencing identifies novel autosomal recessive DSG1 mutations associated with mild SAM syndrome. *Br J Dermatol* 2016; 174: 444–448.

References

1. Danielsen K, Olsen AO, Wilsgaard T, Furberg AS. Is the prevalence of psoriasis increasing? A 30-year follow-up of a population-based cohort. *Br J Dermatol* 2013; 168: 1303–1310.
2. Danielsen K, Wilsgaard T, Olsen AO, Eggen AE, Olsen K, Cassano PA, Furberg AS. Elevated odds of metabolic syndrome in psoriasis a population based study of age and sex differences. *Br J Dermatol* 2015; 172: 419–427.
3. Danielsen K, Wilsgaard T, Olsen AO, Furberg AS. Overweight and weight gain predict psoriasis development in a population-based cohort. *Acta Derm Venereol* 2017; 97: 332–339.
4. Ingvarsson G, Dufour DN, Killasli H, Sartorius K, Lapins J, Skau PA, et al. Development of a clinical Scandinavian Registry for hidradenitis suppurativa: HISREG. *Acta Derm Venereol* 2013; 93: 350–351.