Interview with Dr John Harris

Dr. Harris is a tenure-track Associate Professor in the Department of Dermatology at the University of Massachusetts Medical School (UMMS) in Worcester, MA. Dr. Harris directs the Vitiligo Clinic and Research Center at UMMS.

A number of people asked about using tacrolimus or protopic – is it safe and not a cancer-risk and can children use it? Is it better than using a steroid cream?

Dr Harris explained that the reason there was a warning in the patient information leaflet was because Protopic was originally an oral medication used to suppress rejection of transplanted kidneys. In order to prevent kidney rejection patients had to take very large doses orally. As a result, the FDA in the US said that Protopic was the same medicine and had to carry the same warning. However, his view was that using it in small quantities topically didn't expose you to the same level of the drug or to the same route of absorption.
He also said that the clinic had been using it had real data that there was no increased risk from using it. It can be hoped that this data will be published and filter through to the UK to reassure both clinicians and people that it is safe to use. And as a measure of its safety Dr Harris said that he used it on his own children.
However, this leads us on to the difference between prescribing this and topical steroids.
In terms of treatments available routinely here, Dr Harris was very positive about what he called the 'old conventional treatments' and that they really did work.

In his clinic he also used some of the newer treatments like the JAK inhibitors, but he would start a patient on topical steroids or protopic; if the vitiligo was very rapidly progressing, he'd give oral steroids as well, and he would also use narrowband uvb. In his words, these treatments 'do wonders'!
However, his caveat was that the clinician did have to know how to use them (and this is also where the UK approach differs). His approach would be to use Protopic on the face and on 'tender' areas of skin such as the genitals and breasts. He would use an ultra-potent topical steroid (clobetasol or betamethasone) on other areas and said that anything of a lower strength than this didn't work. He recognised that there were significant side effects such as stretch marks and skin thinning of long term steroid use but said that the ultra-potent steroid cream worked better than Protopic, and he'd alternate them on a week by week basis (one week on clobetasol/but usually betamethasone, one week on Protopic) to get the best results with least side effects.
He said that in his opinion using a weak steroid cream was no good at treating vitiligo.

I asked Dr Harris if there was a special vitiligo diet, if gluten was implicated in development of vitiligo, and if supplements could help.

He said that he got these questions a lot in clinic and recognised that controlling diet was a way that people could feel that they have some control over their condition. Taking an oral supplement gave people some control over the situation they found themselves in, however there was no good evidence that taking any supplements or changing diet was of any benefit.
A lot of people asked about giving up gluten and he felt that this had in part arisen due to a link with coeliac disease, another auto-immune condition. However, he didn't recommend giving up gluten unless you had coeliac disease already and said there was no benefit to vitiligo in giving it up. He acknowledged it as being a very difficult diet to follow, which usually involved the whole family having to follow it and, in his words, it was 'no fun'.

We talked about different supplements and he was saying that he'd literally one day in clinic had a patient come in and say that they'd taken up Vitamin C and it had made their vitiligo better and the very next patient said that they'd given up Vitamin C and it had made their vitiligo better. So overall, he said there was no evidence supporting radical dietary changes, giving things up or taking supplements in high doses. If it made you feel better, then his advice was to go ahead, but not to expect too much from doing so.

I asked him about gingko which he said had had some 'subtle effects' in a small trial, and he mentioned something called polypodium as well, but he reiterated that even if it did help a 'tiny bit' his advice in clinic was that he had medicines that helped a lot so why focus on a 'tiny bit' when you could have an effective treatment.

He mentioned too that in the US the supplements/vitamins industry isn't well-regulated and that in a recent test of gingko products available there, 80% of them were found to contain garden plants and no gingko.

There was one final thing, which were foodstuffs containing psoralens, like babchi seeds, however his warning was that whilst psoralens and uvb light worked for vitiligo it did cause skin cancer. PUVA treatment which used psoralens is no longer used in the UK or US for treating vitiligo, and narrowband UVB has taken over instead.

I asked why vitiligo is so unpredictable that it can spread faster in some people and slow in others and he referred me to the post I added to the group on patterns of vitiligo, which explains the different types. I also asked the question about triggers, genetics and autoimmunity.
His basic explanation on genetics was that your parents might not have it because, say, the necessary genetic combination for vitiligo was 10 genes together, and each of your parents might only have 5 of them, and not get it, but you then got 10 and so did (that's a very simplified version of the genetic pattern for vitiligo).

Treatments / research / cure:
In answer to the question about a cure, Dr Harris started by saying that vitiligo wasn't like type one diabetes, because in type one diabetes your insulin producing cells were completely killed off. In vitiligo there were still stem cells present and so reversing the constant auto-immune activity in the cells was a possibility. This was the hope of the current research being done by Villaris Therapeutics trying to suppress the activity of the resident memory T-cells which currently prevented patients from regaining long term re-pigmentation.
I asked if the drug would also need treatment with narrowband uvb or sunlight and he said that wasn't necessarily the case and explained that the trial run by Incyte last year hadn't used any kind of uvb light with the drug they were testing (ruxolitinib cream).

I asked if the trials for Villaris Therapeutics' antibody would also take place in the UK but got the impression that the trials in the first instance will take place near Dr Harris, as the lead on the project. He explained that any company going into trials looked for accessible sites and ones where the regulatory environment was receptive to trials being helped rather than hindered.
There was another IL-15 trial being planned by another company in the US and looking to start with recruiting patients when Covid-19 was causing less disruption to recruitment.

I asked then about the various beauty treatments that someone had asked about. He said that these treatments might cause a Koebner like phenomenon where vitiligo occurs when the skin is traumatised. It was very interesting to hear him say that the Koebner phenomenon only occurs when your vitiligo is active i.e. your patches are growing in size or you were getting a new patches on your skin. There was a risk associated with all of the treatments, much greater risk if your vitiligo was active, and his recommendation was to try to do these treatments only when your vitiligo was stable, and then to try a test patch first and to leave it for eight weeks or so and see if it made any vitiligo appear there.

Finally, I asked him about the trial using NCTF135 (this was a Russian trial; 7 patients involved)
His comment was that it was hard to know for sure if this was going to work at not. On one level it was useful to have a study, but he saw it as being a bit biased, that there weren't enough patients to show a significant effect and there was no blinding or placebo so that made it poorly designed and therefore difficult to say if it had worked at all. They needed to run a study with larger numbers; that was blinded and that used a placebo alongside the active treatment. He hadn't really seen antioxidants being of any help to vitiligo patients.