Administrative data and scientific evidence: a lesson from France – the safety of systemic treatment for psoriasis during the COVID-19 pandemic

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Concerns have repeatedly been raised about the safety of systemic treatment for immune-related conditions during the COVID-19 pandemic.[1] Regarding psoriasis, reassuring data on the risk of hospitalization and mortality due to SARS-CoV-2 infection have so far been provided for patients on systemic treatment,[2–4] with some papers even suggesting a protective effect of biological treatment for the most ominous outcomes.[5] As a matter of fact, most of the available studies were published under the pressure to provide some kind of evidence, and were either underpowered or suffered from important methodological flaws, such as the lack of appropriate denominators, making their estimates questionable.[6,7] There is a need to develop reliable monitoring systems on a large scale at sustainable costs.

In this issue of the *BJD*, Penso *et al.* present the results of a large retrospective nationwide cohort of patients with psoriasis in France.[8] The study was based on the French national health data system, which covers the entire French population, and linked two different sources of administrative data: the National Health Insurance Claim Database and the National Hospital and Discharge Database.

The study, which relied on the data of more than 1 million patients with psoriasis, was carefully designed with several covariates controlled for. Notably, it included a deprivation index, as socioeconomic factors are a major determinant of all-cause mortality and COVID-19 mortality.[9] The first and second waves of the COVID-19 pandemic were analysed separately, as modifications in medical care and risk-mitigating behaviour may have occurred during the two periods.

In the analysis, systemic treatments for psoriasis, including both conventional therapies and biologics, were not associated with an increased risk of in-hospital mortality due to COVID-19, although an increased risk of hospitalization was found for patients receiving conventional systemic treatment in both waves of the pandemic, and during the second wave for patients under biologics. Such differences in estimates may be attributed to changes in risk-mitigating behaviour by patients on biologics during the two phases of the pandemic. Comorbidities, irrespective of the treatment received, may also affect risk estimate, as documented by the increased risk of hospitalization for patients on topical treatment only. Such an increased risk disappeared when considering the subgroup of patients without comorbidities. Despite some previous suggestions, there was no prophylactic impact of long-term biologics use on the risk of in-hospital death from COVID-19.[5] A rather surprising figure was the low number of patients with psoriasis receiving any treatment for their disease: more than two-thirds of all patients did not receive any medication during the two pandemic waves, and only about 6% of all the patients were on a systemic treatment. If these figures reflect reality, then studies restricted to hospital patients should be considered with great caution.

There is now enough evidence to justify the continuation of routine psoriasis care during the COVID-19 pandemic, while stopping systemic treatment in the absence of infection is not advisable.[10]

The French group should be commended on their excellent study, which shows how administrative data can be used efficiently, effectively and creatively to produce robust evidence when considering risk assessment at the population level.

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Benefits of a nationwide population-based skin cancer screening programme – still a controversial debate

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Since its introduction in 2008, the nationwide population-based skin cancer screening programme in Germany has faced a number of critical arguments, which in the end focused on the fact that no reduction in skin cancer-associated mortality has been observed.[1,2]

In this issue of the BJD, Datzmann and colleagues present data of a retrospective cohort study, based on health insurance data of 1 431 327 individuals from Saxony for the years 2010–2016.[3] The publication illustrates an association between favourable prognostic factors in patients with melanoma and participation in the nationwide population-based skin cancer screening programme in Germany. Thus, screened participants were diagnosed at earlier tumour stages and received less radical treatment upfront than patients diagnosed outside the screening programme. However, due to a relatively short observation period, the long-term effects of the programme could not be adequately analysed. The observed improvement in survival within the first few years after diagnosis may have been caused by selection bias and overdiagnosis or lead-time bias.

Even after the release of this data, we still cannot adequately answer the question of an improvement in melanoma-specific survival; we can only infer it indirectly, e.g. by improving prognostic factors. However, does a judgement of a screening programme have to be done solely by referring to the improvement in mortality? I think not.

Besides, melanoma target indications of skin cancer screening also include nonmelanoma skin cancer, mainly basal cell carcinoma and squamous cell carcinoma. These cancers can be treated surgically with curative intent and only in isolated cases – if left untreated for months or even years – end fatally. For these tumour types, a screening programme per se is not expected to improve mortality.

The general purpose of skin cancer screening programmes, in addition to reducing mortality, is early detection and thus a reduction in the number of extensive and difficult operations. In addition, the economic aspects should not be forgotten. Tumours diagnosed late often require inpatient treatment and multiple procedures, while smaller tumours can be treated on an outpatient basis, which in turn is cost-effective.

One aspect that is often forgotten is raising patients' awareness of their own skin tumour screening or, more importantly, raising their awareness of protection against ultraviolet radiation.[4] The screening programmes aim to achieve two long-term goals through prevention: firstly, to reduce skin cancer rates, which have been increasing for decades due to age and behaviour; and secondly, to reduce the rate of new cases as much as possible.

So, what is next? Currently, the 'EvaSCa' project is running to further evaluate skin cancer screening. For this purpose, a case–control study and several cohort studies are being conducted.[5] They aim to estimate the effect of skin cancer screening on melanoma mortality and to investigate the benefits of currently implemented skin cancer screening methods. Various medical and health economic factors will be compared between patients with skin cancer whose tumour was detected by skin cancer screening and patients with skin cancer whose skin cancer was not detected by skin cancer screening. The evaluation is intended to be the basis for proposals for the further development of skin cancer screening.

However, I do not expect the debate about the German skin cancer screening programme will die down after that.

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