Dermatology research with the Observational Health Data Sciences and Informatics (OHDSI) network

The Observational Health Data Sciences and Informatics (OHDSI) network enables access to billions of de-identified, standardized health records and built-in analytics software for observational health research. We review dermatology uses of OHDSI. The OHDSI collaborative network of researchers across the country, and its methods and tools, support precision medicine for diseases and outcomes. Various applications of OHDSI are represented in the literature, particularly in adverse event reporting, heritability estimation, adherence to treatments, and characterization of prescribing patterns. Together, these illustrate the potential of OHDSI in dermatology: its adoption would facilitate examination of treatment guidelines, and characterization of prescribing patterns. Enhanced the ease and speed of observational studies. Its scale lends increased power and detailed characteristics of clinical forms, anatomic sites, Breslow depth, and treatments could not be analyzed. This study outlined the burden of melanoma in the Russian Federation, and the trends were similar to those observed in countries with similar latitudes and skin phenotype. The importance of the skin color gradient and recreational/cultural practices were some of the most important risk factors highlighted in this study for the development of melanoma in Russia.

Polypoid melanoma is a rare subtype of melanoma characterized by pedunculated exophytic growth. These tumors tend to have a thick Breslow depth, but it is unknown if the prognosis of this subtype is worse compared to other variants of melanoma. A retrospective review was performed of 37 polypoid melanomas and compared to 264 non-polypoid nodular melanomas. All cases were independently re-evaluated by board-certified dermatopathologists for the following histopathologic parameters including Breslow depth, mitotic rate, ulceration, and angiolymphatic invasion. Basic demographic data and clinical characteristics were collected from electronic medical record data and compared, including clinical stage at diagnosis and survival, histopathologic characteristics, age, sex, and race.

Patients with polypoid melanoma had a younger average age than patients with nodular melanoma. Histopathologic review revealed that polypoid tumors had a significantly higher average age at diagnosis and had a higher average Breslow depth than nodular melanomas. Analysis of clinical outcomes by log-rank test showed a higher risk of distant recurrence and worse overall survival in polypoid tumors compared to non-polypoid nodular melanoma. Multivariable analysis showed an association of polypoid subtype with higher average age at diagnosis and worse survival compared to non-polypoid nodular melanomas.

Thematic saturation was reached, requiring a total of 21 interviews. Mean age was 36.9 years (range: 11-90). All participants had a mean Numerical Rating Scale (NRS) pain score of <11 indicating a very to extremely large impact of HS on QoL. Thematic qualitative data analysis yielded four preliminary domains: pain character, pain impact, pain management, and exacerbating/allolevating factors. Participants described their pain using terms associated with both nociceptive and neuropathic pain character. Within the pain impact domain, participants noted an impact on work/school, home, sleep, social life, leisure, relationships, and activities. Characterizing pain experiences in HS is a critical next step to informing the development of interventions that will improve QoL, reduce opioid use, and strengthen the patient-physician relationship.