Disease Burden in Vitiligo

Summary

Introduction. Vitiligo is a chronic, autoimmune dermatological condition characterized by the progressive loss of skin pigmentation. The concept of "disease burden" in vitiligo reflects the complexity of this condition, encompassing not only clinical manifestations but also the associated psychological, social, and economic consequences. The impact is multidimensional: it affects body image, mental health, social and professional life, as well as the financial resources of patients. **General Hypothesis.** This paper aims to investigate the impact of vitiligo on quality of life and self-esteem, emphasizing the importance of a multidisciplinary therapeutic approach. The general hypothesis of the thesis is that there is a significant relationship between the clinical and sociodemographic characteristics of patients with vitiligo and the impact of the disease on quality of life and self-esteem, within an adult population from the central region of Romania. **Material and Method.** This observational, cross-sectional study was conducted between March 2021 and March 2023 on adult patients diagnosed with vitiligo, recruited from the outpatient clinic of the Dermatology Clinic of Târgu Mureș and from private practices. All participants signed informed consent, and the study was approved by the relevant ethics committees. The impact of the disease on quality of life and self-esteem was assessed using the validated DLQI and Rosenberg Self-Esteem Scale questionnaires, complemented by a detailed dermatological examination and an additional questionnaire containing disease-specific questions. Statistical analysis included non-parametric tests (Mann–Whitney, Kruskal–Wallis), chi-square tests, exploratory factor analysis (PAF), principal component analysis, and clustering methods. The reliability of the questionnaires was confirmed using Cronbach's alpha and McDonald's Omega coefficients, with statistical significance set at $p < 0.05$. Data management was performed in accordance with GDPR regulations. The personal section of the doctoral thesis is structured into four studies. In the first study, we investigated and analyzed the clinical and sociodemographic characteristics of a cohort of patients with vitiligo, as well as possible correlations with factors associated with the development of the disease. In studies 2 and 3, we analyzed the psychometric properties of the responses obtained from the questionnaires used: the Rosenberg Self-Esteem Scale and the DLQI Quality of Life questionnaire. Study 4, a cross-sectional observational study, involved data collection using the Dermatology Life Quality Index (DLQI) and Rosenberg Self-Esteem Scale (RSE) questionnaires, followed by analysis of the results using multivariate methods. The specific hypotheses derived from these analyses are detailed in the chapters dedicated to each study. **Overall Results.** A total of 114 patients (56 men, 58 women) aged 19 to 78 years completed the questionnaires, most of whom were from urban areas and had a high school education. More than half had been living with vitiligo for over 10 years, with visible lesions in 58.8% of cases. Disease severity was moderate, affecting less than 10% of the body surface area in nearly half of the patients. DLQI analysis showed that disease onset, gender, and marital status influence the perception of symptoms and personal relationships. Daily activities were less affected in older patients. Sexual life was more impacted in patients under 60 years of age with visible lesions, and treatment was more challenging for those with larger affected areas. Self-esteem was lower in younger and unmarried individuals. Multivariate analyses identified two distinct groups: young, unmarried individuals with a major impact on quality of life and low self-esteem, and older, married individuals with minimal effects. The DLQI-RSE correlation confirmed the link between quality

of life and self-esteem. These results underscore the importance of considering age, marital status, and disease duration in the management of vitiligo. **General Discussions.** The study highlights the significant impact of vitiligo on quality of life and self-esteem, particularly in young unmarried individuals with visible lesions. The broad distribution of patients confirms the multifactorial and chronic nature of the disease, with slow progression and frequent recurrences. Low self-esteem, identified in over half of the patients, underscores the psychological vulnerability of affected individuals and the need for psychosocial support. The validation of the Rosenberg Scale and the DLQI confirms their usefulness in assessing the impact of the disease. The presence of autoimmune comorbidities and triggering factors further supports the complexity of vitiligo's pathogenesis. These findings emphasize the importance of a multidisciplinary approach, incorporating both dermatological and psychological care, to improve the quality of life for patients. **Originality of the Thesis.** To the best of our knowledge, this research is the first of its kind conducted at a national level on vitiligo. The paper explores the psychosocial impact of vitiligo in a comprehensive and integrated manner, investigating the correlations between self-esteem and quality of life, using validated psychometric instruments (Rosenberg Scale and DLQI). The study makes a valuable contribution to the validation of the DLQI in the context of this specific pathology. Additionally, the research can serve as a guide for the proper application of Exploratory Factor Analysis (EFA), addressing numerous hypotheses that are often insufficiently explored by other researchers. **General Conclusions.** Vitiligo is a dermatological condition with a significant impact both clinically and psychosocially, negatively influencing the self-esteem and quality of life of patients. This study emphasizes the need for a multidisciplinary approach in the management of the disease, integrating psychological assessment alongside dermatological treatment to adequately address the complex needs of patients. The results of the study show that most of the clinical and epidemiological characteristics of vitiligo observed in the analyzed cohort are consistent with those reported in the international literature. Certain etiopathogenic factors were identified with a higher prevalence in the studied population, including: family history of vitiligo, hypopigmented ocular phenotype, early onset of gray hair, presence of halo nevus, increased predisposition to sunburn, skin trauma as triggering factors, and a higher incidence of associated autoimmune thyroid pathology. Based on these findings, an epidemiological and clinical profile of the patient with increased susceptibility to vitiligo emerges: male or female, with skin phototype I–III (according to the Fitzpatrick scale), hypopigmented iris, presence of halo nevus, history of repeated skin trauma, early graying, sensitivity to sunburn, and a family history of autoimmune diseases. The psychometric instruments used in the study demonstrated their validity and relevance for dermatological clinical practice. In particular, the Dermatology Life Quality Index (DLQI) showed excellent reliability. The significant correlations identified between the Rosenberg scores (for assessing self-esteem) and the DLQI support the hypothesis that diminished self-esteem is associated with a more pronounced negative impact on dermatological quality of life. Another key finding highlights the influence of sociodemographic variables on quality of life and self-esteem. Older patients, married individuals, and those with a longer history of the disease reported higher self-esteem and a lower impact on quality of life. In contrast, younger, unmarried patients with a recent diagnosis reported a more severe psychosocial impact. Despite some limitations, such as sample size and recall bias, the study provides a solid foundation for understanding the psychosocial impact of vitiligo and advocates for a holistic, patient-centered care approach that integrates both physical and mental health.