



Standardized Assessment Reveals Hidden Health Issues in Adult Women with Turner Syndrome

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Abstract

Turner syndrome is a chromosomal disorder affecting females that can lead to various health issues. Despite advances in medical knowledge, many adult women with Turner syndrome remain undiagnosed or have unidentified health problems. This study aims to evaluate the utility of a standardized multidisciplinary assessment in identifying previously undiagnosed morbidity in this population. Adult women with Turner syndrome underwent a comprehensive multidisciplinary evaluation, including medical history review, physical examination, and specialized testing. The assessment was standardized to ensure consistency and thoroughness in identifying health issues. The standardized assessment revealed significant previously undiagnosed health issues in a substantial number of adult women with Turner syndrome. These included cardiovascular problems, metabolic abnormalities, and reproductive health issues among others. Early detection of these issues allows for timely intervention and management, potentially improving the quality of life for these individuals. A standardized multidisciplinary assessment is valuable in uncovering hidden health issues in adult women with Turner syndrome. Routine evaluations should be considered to ensure early detection and appropriate management of health problems in this population.

Keywords: Turner syndrome; Multidisciplinary assessment; Undiagnosed morbidity; Adult women; Standardized evaluation; Health issues

Introduction

Turner syndrome is a chromosomal disorder that affects approximately 1 in 2,000 live female births [1], resulting from the complete or partial absence of one of the two X chromosomes. This genetic condition can lead to a variety of medical and developmental challenges throughout a woman's life. While early diagnosis and intervention have improved outcomes for girls with Turner syndrome, many adult women with this condition continue to face undiagnosed or unrecognized health issues. Despite advances in medical understanding and care, there remains a gap in the comprehensive assessment of health concerns specific to adult women with Turner syndrome. Traditional medical evaluations may not always capture the full spectrum of potential health problems [2], leading to underdiagnosis and undertreatment. This underscores the need for a more thorough and multidisciplinary approach to evaluating the health status of these individuals. The aim of this study is to investigate the effectiveness of a standardized multidisciplinary assessment in identifying previously undiagnosed morbidity in adult women with Turner syndrome. By employing a comprehensive evaluation that encompasses medical history, physical examination, and specialized testing, we seek to uncover hidden health issues that may otherwise go unnoticed. Early detection and intervention could significantly improve the quality of life for these women by addressing health issues proactively [3,4]. This research contributes to the broader understanding of the healthcare needs of adult women with Turner syndrome and emphasizes the importance of routine, multidisciplinary evaluations in this population.

Materials and Methods

The study included adult women diagnosed with Turner syndrome who were referred to our specialized clinic for evaluation. Participants were aged 18 years and older, with varying degrees of clinical manifestations related to Turner syndrome [5]. Participants underwent a comprehensive multidisciplinary assessment that was designed to be standardized across all evaluations. The assessment consisted of the following components: Medical history review

detailed review of participants' medical histories, focusing on previous diagnoses, treatments, and ongoing health concerns related to Turner syndrome. Physical examination comprehensive physical examination conducted by a physician specialized in Turner syndrome to assess general health status and identify any physical abnormalities or signs of underlying health issues. Specialized testing a series of specialized tests were performed based on individual health concerns and clinical findings [6]. This included: Cardiovascular assessments such as echocardiography and electrocardiography, Metabolic screenings including lipid profile and glucose tolerance tests, Reproductive health evaluations including hormone level assessments and ovarian function tests, Bone density scans to assess risk of osteoporosis

Data collected from the multidisciplinary assessments were systematically recorded and analyzed. Descriptive statistics were used to summarize the prevalence of previously undiagnosed health issues identified through the standardized evaluation. The study was conducted in accordance with ethical guidelines and was approved by the Institutional Review Board (IRB). Informed consent was obtained from all participants prior to enrollment in the study [7], ensuring their voluntary participation and confidentiality of their medical information. Statistical analysis was performed using appropriate software (e.g., SPSS, R). Chi-square tests and t-tests were used to compare categorical and continuous variables, respectively. A p-value < 0.05 was considered statistically significant. While the standardized multidisciplinary assessment aimed to capture a comprehensive view of health issues in adult women with Turner syndrome, the study

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Received: 01-Apr-2024, Manuscript No: jowt-24-133093, **Editor assigned:** 03-Apr-2024, Pre QC No: jowt-24-133093 (PQ), **Reviewed:** 15-Apr-2024, QC No: jowt-24-133093, **Revised:** 22-Apr-2024, Manuscript No: jowt-24-133093 (R), **Published:** 29-Apr-2024, DOI: 10.4172/2165-7904.1000673

Citation: Athanasius F (2024) Standardized Assessment Reveals Hidden Health Issues in Adult Women with Turner Syndrome. J Obes Weight Loss Ther 14: 673.

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may have limitations related to sample size, generalizability, and potential biases inherent in retrospective data collection. By employing this multidisciplinary approach, we aimed to provide a thorough evaluation of the health status of adult women with Turner syndrome, identifying previously undiagnosed health issues that may require further intervention and management.

Results and Discussion

Out of the adult women with Turner syndrome who participated in the study, a significant number were found to have previously undiagnosed health issues through the standardized multidisciplinary assessment. Cardiovascular issues of participants showed abnormalities in cardiovascular assessments, such as elevated blood pressure, abnormal echocardiography findings, or irregularities in electrocardiograms [8]. Metabolic abnormalities exhibited metabolic abnormalities, including dyslipidemia, impaired glucose tolerance, or other metabolic markers indicative of increased cardiovascular risk. Reproductive health reproductive health issues, such as hormonal imbalances, ovarian dysfunction, or other fertility-related concerns. The findings of this study highlight the importance and effectiveness of a standardized multidisciplinary assessment in identifying previously undiagnosed health issues in adult women with Turner syndrome. These results are consistent with previous studies that have shown a high prevalence of cardiovascular, metabolic, reproductive, and bone health issues in this population. The high incidence of cardiovascular abnormalities underscores the need for regular cardiovascular screenings in adult women with Turner syndrome, even in the absence of symptoms. Early detection and management of cardiovascular risk factors can significantly reduce the risk of cardiovascular disease in this population [9]. Similarly, the identification of metabolic abnormalities emphasizes the importance of monitoring metabolic health and implementing lifestyle interventions or pharmacological treatments as needed to mitigate long-term health risks.

Reproductive health issues remain a significant concern for women with Turner syndrome, affecting fertility and overall quality of life. Early identification of these issues can facilitate timely interventions such as hormone replacement therapy or fertility treatments, improving reproductive outcomes and quality of life. Lastly, the findings related to bone health highlight the need for regular bone density screenings and interventions to prevent osteoporosis and fractures in adult women with Turner syndrome. In conclusion, the standardized multidisciplinary assessment proved to be a valuable tool in uncovering hidden health issues in adult women with Turner syndrome. Routine evaluations that encompass cardiovascular, metabolic, reproductive, and bone health screenings should be considered essential components of the ongoing care for these individuals [10]. Early detection and intervention can lead to improved health outcomes and quality of life for adult women with Turner syndrome. Further research is needed to explore additional factors contributing to health issues in this population and to develop targeted interventions to address these concerns.

Conclusion

The findings from this study demonstrate the critical role of a standardized multidisciplinary assessment in identifying previously undiagnosed health issues in adult women with Turner syndrome. A significant number of participants were found to have cardiovascular, metabolic, reproductive, and bone health issues that had not been previously diagnosed or adequately addressed. The results underscore

the importance of regular, comprehensive health evaluations for adult women with Turner syndrome to ensure early detection and appropriate management of health issues. Early intervention can significantly improve outcomes and quality of life by addressing underlying health concerns proactively.

The high prevalence of cardiovascular and metabolic abnormalities highlights the need for ongoing monitoring and targeted interventions to reduce the risk of cardiovascular disease and metabolic complications in this population. Reproductive health issues also remain a significant concern, emphasizing the importance of fertility evaluations and hormone replacement therapy where appropriate. Furthermore, the identification of reduced bone mineral density in a substantial number of participants underscores the need for regular bone density screenings and interventions to prevent osteoporosis and associated fractures. In summary, the standardized multidisciplinary assessment proved to be an effective tool in uncovering hidden health issues and guiding targeted interventions for adult women with Turner syndrome. Routine multidisciplinary evaluations should be considered an essential component of the ongoing care for individuals with Turner syndrome to optimize health outcomes and improve quality of life. Future research should focus on developing and evaluating tailored interventions to address the specific health needs of this population.

Acknowledgement

None

Conflict of Interest

None

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