

Parry - Romberg Syndrome: A Case Study of Hemifacial Atrophy and Treatment Outcomes

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Abstract: Parry - Romberg Syndrome (PRS) is a rare neurocutaneous disorder characterized by progressive hemifacial atrophy, predominantly affecting the skin, subcutaneous tissue, muscle, and bone. This case study discusses a 19 - year - old female presenting with worsening facial asymmetry over three years. Clinical findings included hemifacial atrophy on the right side, hyperpigmented patches on the forehead and periorbital area, and alopecia of the right eyebrows, with unremarkable neurological and ocular assessments. Diagnosis was confirmed through clinical and histopathological evaluation. The patient was treated with methotrexate, which showed mild improvement in alopecia and skin lesions. PRS treatment often involves a multidisciplinary approach, including medical and surgical interventions, to address functional impairments and enhance quality of life. This case underscores the importance of early diagnosis and a comprehensive management strategy in improving patient outcomes.

Keywords: Parry - Romberg syndrome, hemifacial atrophy, case study, methotrexate treatment, multidisciplinary care

1. Introduction

Parry - Romberg syndrome (PRS) is a rare neurocutaneous disorder characterized by progressive hemifacial atrophy affecting the skin, subcutaneous tissue, muscle, and bone. Its exact cause remains elusive, though autoimmune, genetic, and vascular theories have been proposed. PRS typically manifests during childhood or adolescence and progresses over several years, leading to significant facial asymmetry and functional impairments

2. Case Synopsis

A 19 - year - old female presented with gradually worsening

facial asymmetry over the past 3 years.

Clinical examination revealed hemifacial atrophy of right side with hyperpigmented patches over the right side of forehead and periorbital area with alopecia of the right eyebrows. Neurological assessment and ocular examination was unremarkable. The diagnosis of Parry - Romberg syndrome was established based on clinical findings and histopathological findings.

The patient was started on methotrexate 7.5mg weekly once and gradually increased to 15 mg weekly with daily folic acid. Patient reported mild improvement in eyebrow alopecia and skin lesions.



3. Discussion

Parry - Romberg syndrome is a rare condition that typically causes atrophy of the soft tissue on one side of a person's face. Surgical interventions such as autologous fat grafting, dermal fillers, and tissue transfer may improve facial symmetry.

Multidisciplinary care involving dermatologists, plastic surgeons, neurologists, and psychologists is essential to optimize patient outcomes and quality.

Conflicts of Interest

None

References

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