

**Corresponding author:**

Dr. Nandita Krishnagopal Patel  
Consultant Dermatologist, Kiran Hospital, Surat.  
drnanditapatel@gmail.com

**References**

1. Falabella R. Treatment of localised vitiligo by autologous minigrafting. *Arch Dermatol* 1988;124:1649-55.
2. Savant SS. Autologous miniatures punch grafting in vitiligo. *Indian J Dermatol Venereol Leprol* 1992;58:310-4.
3. Omi T, Numano K. The role of the CO<sub>2</sub> laser and fractional CO<sub>2</sub> laser in dermatology. *Laser Ther* 2014;23:49-60.
4. Bae JY, Jang DH, Lee JI, Jung HJ, Ahn JY, Park MY. Comparison of microinsulated needle radiofrequency and carbon dioxide laser ablation for the treatment of syringoma. *Dermatol Ther* 2019;32:12912.
5. Preissig J, Hamilton K, Markus R. Current laser resurfacing technologies: A review that delves beneath the surface. *Semin Plast Surg* 2012;26:109-16.

## Rhytidectomy for pachydermoperiostosis

Sir,

Pachydermoperiostosis, a rare genetic disorder, presents with various cutaneous manifestations such as thickened skin thrown into folds and furrows, thickened eyelids with mechanical ptosis and seborrhea.<sup>1</sup> The furrows on the forehead give an appearance of premature aging resulting in significant cosmetic morbidity. There are no successful medical treatment options for improving the facial appearance in these patients and therefore, it remains a therapeutic challenge.<sup>2</sup>

Rhytidectomy on the forehead furrows has been performed rarely to improve the facial features in patients with pachydermoperiostosis.<sup>3</sup> The procedure of rhytidectomy is carried out as follows: The furrows to be excised are marked [Figure 1]. Taking sterile aseptic precautions, local anesthesia containing lignocaine 2% with adrenaline 1:100,000 is infiltrated around the central forehead furrows and other horizontal and longitudinal furrows using a 26-gauge needle. After anesthesia, an incision is made on the upper and lower furrow, followed by excision of central forehead skin (along the furrows). Other furrows are excised more selectively sparing the adjoining skin. The furrows are excised up to the level of the subcutaneous tissue [Video 1]. After hemostasis and undermining [Video 2], the wound is closed in layers with Vicryl (polyglactin 910) 4–0 suture in the subcuticular plane and Prolene (polypropylene) 5–0 suture in the skin layer [Video 3]. The suture line is placed in the furrow itself. Oral antibiotics are prescribed after the surgery. The sutures may be removed on the seventh post-operative day. Significant improvement can be achieved in facial appearance after surgery.

We report a case of pachydermoperiostosis who experienced excellent transformation of his facial features after three sessions of rhytidectomy on his forehead. A 30-year-old male



**Figure 1:** Pictorial representation of incision placement

had complaints of thickening of skin over the scalp (cutis verticis gyrata), face (coarse facies and deep furrows and mechanical ptosis), both hands, feet and shin with associated clubbing, palmoplantar hyperhidrosis and joint pain and swelling in the bilateral knee and ankle joints for the past nine years. Laboratory investigations including hemogram, liver and renal functions, thyroid function test, rheumatoid factor, anti-nuclear antibody, anti-cyclic citrullinated peptide, oral glucose tolerance test and insulin-like growth factor-1 levels were normal. With a diagnosis of pachydermoperiostosis, he received hydroxychloroquine 200 mg twice daily for six months with minimal improvement. Thereafter, the treatment was changed to methotrexate 25 mg a week and naproxen one gram daily followed by the addition of colchicine one milligram daily which did not result in improvement in his facial appearance, although joint pains improved significantly.

**How to cite this article:** Taneja N, Gunaabalaji, Gupta S. Rhytidectomy for pachydermoperiostosis. *Indian J Dermatol Venereol Leprol* 2021;87:863-4.

Received: July, 2020 Accepted: May, 2021 Epub Ahead of Print: September, 2021 Published: October 2021

Videos available on:

DOI: 10.25259/IJDVL\_1001\_20 PMID: 34623052

www.IJDVL.com

This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial-Share Alike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.



**Figure 2:** Deep furrows over the forehead of the patient with pachydermoperiostosis (baseline)

When he presented to us [Figure 2], we decided to perform rhytidectomy in view of non-responsiveness to the medical treatment. We performed three sessions of rhytidectomy of deep and prominent furrows which were present over the forehead under local anesthesia over a period of 12 months. Overall, the patient was satisfied with the outcome of improved facial features, which gave him a younger look [Figure 3].

In conclusion, the ease of performance and esthetic cosmetic results make rhytidectomy an effective therapeutic option for patients with pachydermoperiostosis.

#### **Declaration of patient consent**

The authors certify that they have obtained all appropriate patient consent.

#### **Financial support and sponsorship**

Nil.



**Figure 3:** Significant improvement in the facial appearance of the patient (after three sessions of serial rhytidectomy)

#### **Conflicts of interest**

There are no conflicts of interest.

***Neha Taneja, D. R. Gunaabalaji, Somesh Gupta***

Department of Dermatology and Venereology, All India Institute of Medical Sciences, New Delhi, India

#### **Corresponding author:**

Dr. Somesh Gupta,

Department of Dermatology and Venereology, All India Institute of Medical Sciences, New Delhi, India.  
someshgupta@hotmail.com

#### **References**

1. Supradeeptha C, Shandilya SM, Reddy KV, Satyaprasad J. Pachydermoperiostosis-a case report of complete form and literature review. *J Clin Orthop Trauma* 2014;5:27-32.
2. Zhang Z, Zhang C, Zhang Z. Primary hypertrophic osteoarthropathy: An update. *Front Med* 2013;7:60-4.
3. Monteiro E, Carvalho P, Silva A, Ferraro A. Frontal rhytidectomy: A new approach to improve deep wrinkles in a case of pachydermoperiostosis. *Plast Reconstr Surg* 2003;112:1189-90.