

Case Report

Surgical treatment of congenital melanocytic nevus of cheek in adult: an interesting case report

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ABSTRACT

Congenital melanocytic nevus (CMN) is a rare disease, which is present from birth. CMN has pigmented surface and hairs. CMN are classified in three types according to their size, small size less than 2 cm, medium size 2-20 cm and large or giant size more than 20 cm. If CMN is present over the cheek it causes significant aesthetic deformity. It poses a great challenge to aesthetic and reconstruction surgeon to excise and reconstruct this lesion over the cheek. Cheek is central facial unit and make the largest part of face. Here author presents a case of 20 years old young female who had medium size congenital melanocytic nevi over the left cheek at malar aesthetic subunit. Author planned a single stage excision followed by primary closure. Wound healed well without any complication and sutureline was camouflaged in left nasolabial crease with good aesthetic result.

Keywords: Congenital melanocytic nevus, Aesthetic deformity, Nasolabial crease

INTRODUCTION

Congenital melanocytic nevus (CMN) is a rare disease which is present from birth. CMN has pigmented surface and hairs. CMN is caused by genetic mutation during first trimester of pregnancy.² Commonly mutated genes are NRAS and KRAS.³ CMN contains nevus cells and they are different from melanocyte by their lack of dendrites. CMN are classified in three types according to their size, small size less than 2 cm, medium size 2-20 cm and large or giant size more than 20 cm.⁴ Small size CMN is most common type and approx 1% general population have small size CMN. Large CMN has estimated 1 in 20000 livebirths.⁵ Large CMN have propensity to become malignant melanoma.⁶⁻⁹ If CMN is present over the cheek it causes significant aesthetic deformity. It poses a great challenge to aesthetic and reconstructive surgeon to excise and reconstruct this lesion over the cheek. Cheek is central facial unit and make the largest part of face.

Reconstruction over the cheek should be planned carefully to restore the natural contour, camouflaged the scar and maintain the hair pattern to avoid the operated look. Jackson divided the cheek into five aesthetic units namely malar, lateral, lower, superiomedial and nasolabial.^{10,11}

Here author present a case of 20 years old young female who had medium size congenital melanocytic nevi over the left cheek at malar aesthetic subunit. The lesion measured 6×2.5 cm in size. Hair tuft was present over the surface of lesion. She was concerned her aesthetic deformity and keen to get rid of the lesion in single stage surgical procedure only. This posed a challenge to excise and reconstruct that congenital melanocytic nevus over the mid face region without distorting her lower eyelid, nasolabial region and angle of mouth.

Author planned a single stage excision followed by primary closure. In our case wound healed well without

any complication and sutureline was camouflaged in left nasolabial crease with good aesthetic result.

CASE REPORT

20 years old young female came to out patient department of Plastic, Aesthetes, Burn and Reconstructive Surgery at Sri Sai Super-speciality Hospital, Moradabad. She presented with chief complain of brown to black lesion with multiple hairs over the left cheek since birth (Figure 1, 2).



Figure 1: Congenital melanocytic nevus over the left cheek oblique view.



Figure 2: Congenital melanocytic nevus over the left cheek frontal view.



Figure 3: After excision and primary closure of CMN.

On examination lesion was medium size congenital melanocytic nevi over the left cheek at malar aesthetic

subunit. The lesion measured 6×2.5 cm in size with skin thinning.



Figure 4: Post-operative day 4 after removal of sutures.



Figure 5: Application of silicon gel sheet in post-operative period.



Figure 6: Final result after 7 months oblique view.



Figure 7: Final result after 7 months frontal view.

Hair tuft was present over the surface of lesion. Planning of Excision and single stage reconstruction was discussed with patient and her family, all pros and cons related with the procedure have been explained in details in their language. Routine blood investigations were done. Informed consent was taken. Patient was shifted to operation theater. Marking of excision was done in such a way that scar will camouflaged at border of left nasolabial crease and inconspicuously visible over the face. After marking, local anesthetic solution 2% xylocaine with 0.25 % sensorcaine was infiltrated. After seven minutes, excision of CMN was done. Haemostasis was confirmed with bipolar cautery. Closing of wound was started from both side corners taking in mind to avoid dog ears. Wound was closed with 5-0 vicryl and 6-0 polypropylene sutures in layers (Figure 3). Dressing was done with neosporin powder, steri-strips and transparent tegaderm. All sutures removed on post-operative day 4 and wound again reinforced with steri strips (Figure 4). Silicon gel sheet (Cica-care smith and nephew) was applied over the suture line from the post-operative day 10 to 8 weeks (Figure 5). Sun exposure was avoided strictly in postoperative period upto the 8 weeks.⁷ months post-operative results was shown in pictures (Figure 6, 7).

DISCUSSION

CMN is also known as congenital hairy nevus. Procedure used in surgical management of CMN are primary excision, serial excision, tissue expander, skin grafting, loco regional flap, microvascular free flaps.^{12,13} Non-surgical management of CMN are LASER, chemical peel and dermabrasion. The goals to achieve in surgical management of CMN are to eliminate the risk of malignant transformation, improving aesthetics and camouflaged the scar. Non-surgical methods of CMN treatment do not completely remove the lesion, hence chances of malignant transformation are always there and requires careful surveillance later on. In our case single stage excision and primary closure was done meticulously and scar was camouflaged in left nasolabial crease. Hence result was aesthetically acceptable.

CONCLUSION

Single stage resection with primary closure of medium sized congenital melanocytic nevus over the cheek is simple, easy, safe technique with acceptable aesthetic result. Before doing single stage resection and primary closure over the face, size of lesion, location, approximately of lesion with hair bearing area, nasolabial fold, infraorbital region and angle of mouth should be considered.

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REFERENCES

1. Shah J, Feintisch AM, Granick MS. Congenital Melanocytic Nevi. *Eplasty*. 2016;16:ic4.
2. Price HN Schaffer JV. Congenital melanocytic nevi-when to worry and how to treat: Facts and controversies. *Clinics in Dermatology*. 2010;28(3):293-302.
3. Ryung RM, Philip E, Sameer G, Hensin T. "Genetics of melanocytic nevi". *Pigment Cell & Melanoma Research*. 2015;28(6):661-72.
4. William JD, Timothy BG. *Andrews' Diseases of the Skin: clinical Dermatology*. Saunders Elsevier. 2006.
5. Castilla EE, Dutra GM, Orioli-Parreiras IM. Epidemiology of congenital pigmented nevi: incidence rates and relative frequencies. *Br J Dermatol*. 1981;104:307-15.
6. Egan CL Oliveria SA, Elenitsas R. Cutaneous melanoma risk and phenotypic changes in large congenital nevi: a follow-up study of 46 patients. *J Am Acad Dermatol*. 1998;39:923-32.
7. Quaba AA, Wallace AF. The incidence of malignant melanoma (0 to 15 years of age) arising in "large" congenital nevocellular nevi. *Plast Reconstr Surg*. 1986;78(2):174-9.
8. Ruiz-Maldonado R, Tamayo L, Laterza AM. Giant pigmented nevi: clinical, histopathologic, and therapeutic considerations. *J Pediatr*. 1992;120:906-11.
9. Swerdlow AJ, English JSC, Qiao Z. The risk of melanoma in patients with congenital nevi: a cohort study. *J Am Acad Dermatol*. 1995;32:595-9.
10. Jackson I. *Local Flaps for Head and Neck Reconstruction*. St. Louis, Quality Medical Publishing, 2002.
11. Chadawarkar R, Cervino A. Subunits of the cheek: an algorithm for the reconstruction of partial-thickness defects. *Br J Plast Surg*. 2003;56:135-9.
12. Mutti LA, Mascarenhas MRM, Paiva JMG, Golcman R, Enokihara MY, Golcman B. Giant congenital melanocytic nevi: 40 years of experience with the serial excision technique. *An Bras Dermatol*. 2017;92(2):256-9.
13. Margulis A, Bauer BS, Fine NA. Large and giant congenital pigmented nevi of the upper extremity: an algorithm to surgical management. *Ann Plast Surg*. 2004;52(2):158-67.

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