

1 Congenital Lobular Capillary Hemangioma of Nasalseptum in a 4 2 Year Old Child -A Case Report

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6

7 **Abstract**

8 Lobular capillary haemangioma is a benign, rapidly growing lesion of skin and mucus
9 membrane. It usually involves gingiva, lips, tongue, and buccal mucosa. Nasal cavity is a rare
10 location. Generally cases of haemangioma have been reported in children with epistaxis and
11 nasal obstruction. We report a case of a 4yr old boy with congenital lobular capillary
12 haemangioma of nose without epistaxis.

13

14 **Index terms**— LCH, nasal cavity, congenital, endoscopic approach.

15 **1 I. Introduction**

16 capillary haemangioma are hamartomas and most commonly arise in head and neck, affects 2.6% of all live births.
17 They are noted soon after birth as pink to red macular lesion that rapidly increase in size 1 . The lesion
18 becomes raised, popular or polypoidal 1 .Then they enter a quiescent phase and subsequently regress with 70%
19 disappearing by the age of seven. 1 Lobular capillary haemangioma is a benign, rapidly growing lesion with
20 microscopically distinctive lobular structure that affects the skin and mucus membrane of oral cavity. 2 Gingiva,
21 lips, tongue, buccal mucosa have been reported to be common sites of involvement. It was first described as
22 'botryomycosis' by Poncet and Dort in 1897. 3 It is rarely located in the nasal cavity. The most common site in
23 the nose is nasal septum ??, 5. it affects males more than females. 6 Micro trauma and hormonal factors are the
24 most common etiological factors. In a typical presentation, lobular capillary haemangioma appears at endoscopy
25 as a red to purple mass not larger than 1cm associated with epistaxis. However, in more rare instances the lesion
26 reaches a considerable size filling the nasal cavity and leading to a complain of nasal obstruction.The treatment
27 is nasal endoscopic surgery 7 .

28 We present a case of a 4yr old boy with intranasal lobular capillary haemangioma since birth, with nasal
29 obstruction but without any complaint of nasal bleeding. It is considered in differential diagnosis Author ? ?
30 ? ? ¥ § ?: Department of ENT and Head Neck Surgery, RG Kar Medical College, Kolkata, INDIA. e-mails:
31 jdbegins007@gmail.com, ajaymanickam87@gmail.com of childhood endonasal mass without bleeding like dermoid
32 cyst, nasoalveolar cyst, nasolacrimal cyst, meningocele, encephalocele, glioma, chordoma etc. 1

33 **2 II. Case Report**

34 A 4yr old boy came to the outpatient department of a tertiary care hospital with a swelling in left side nasal
35 cavity. According to his mother it was there since birth and progressively increasing in size with age. Patient
36 had only complaint of nasal obstruction. There was no history of epistaxis, nasal discharge, and disturbance
37 of smell, headache, facial pain or change of voice. Local examination of Ear, Throat, Head & neck was within
38 normal limits. There were no enlarged neck glands or palpable neck nodes.

39 On anterior rhinoscopy, a non-tender greyishwhite mass with smooth surface and soft consistency was seen in
40 left side of nasal cavity. There was no nasal discharge or sinus tenderness.Diagnostic nasal endoscopy showed its
41 attachment to the anteroinferior portion of septum partially obstructing the left nasal passage. Also there was
42 mild DNS to right. (Figure ??) Endonasal endoscopic excision of the lesion was planned under general anaesthesia.
43 The nasal mass was completely resected with a rim of normal septal mucoperiosteum and perichondrium under

4 IV. CONCLUSION

44 GA. There was no need for any perioperative blood transfusion. The surgical specimen was sent for histopathological
45 examination. (Figure 3) On gross examination, mass was whitish with smooth surface measuring 2x1.2 cm in
46 size. On histopathological examination, section shows a lesion composed of proliferating capillaries of various sizes
47 lined by flattened endothelium lying in a fibrous stroma suggestive of lobular capillary haemangioma. There was
48 no evidence of malignancy. (Figure 4) The patient has been followed up for a period of one year, and there is no
49 recurrence of growth.

50 3 III. Discussion

51 Capillary haemangioma are hamartoma, most commonly arise on head and neck affecting 2.6% of all live births
52 1 . They are noted soon after birth as pink to red macular lesion that rapidly increase in size. 1 the lesions
53 become raised, popular or polypoidal, then enter a quiescent stage and subsequently regress with 70% disappearing
54 by the age of seven. 1 LCH was first described by Poncet and Dor in the year of 1897 where they referred these
55 tumours as small vascular tumours in finger of four patients. 3 the authors referred to this condition as human
56 botryomycosis thinking that the lesions were secondary to fungal infection.

57 In 1904, Hanziell coined the term pyogenic granuloma to describe these lesions which he suggested to be
58 granulation tissue arising in response to bacterial infection. 8 In 1980 Mills et al propose the term lobular
59 capillary haemangioma derived from its characteristic microscopic features. 9 Aetiology of LCH remains unclear
60 but trauma and hormonal influences are considered to be the main factors. A retrospective study of 112 patients
61 by Pagliai and Cohen shows a history of trauma in 5% with clinically diagnosed as LCH. 10 other possible
62 aetiologies are viral oncogenes, microscopic AV malformations and over production of angiogenic growth factors.
63 11 There is a well-established relationship between LCH and pregnancy. LCH commonly occurs in women who are
64 pregnant and those who use oral contraceptives. These signs regress after delivery indicating a role of hormone in
65 the growth of LCH. 12 Patients with LCH commonly present with nasal obstruction and epistaxis. In our case,
66 patient only presented nasal obstruction. The differential diagnosis for nasal mass without any epistaxis will be
67 meningocele, dermoid cyst, glioma, and polyp. These can be differentiated by CT scan and MRI.

68 Recommended treatment of LCH in nasal cavity is endoscopic guided local excision with cautery at the base
69 of tumour for hemostasis. 10 this technique is associated with lower rate of recurrence. 9, 10

70 4 IV. Conclusion

71 LCH is a rare lesion when it occurs in a nasal cavity. The exact cause is unknown. It may not be always presented
72 with epistaxis or red colour polypoidal mass. It can be considered as a differential diagnosis of intranasal mass
causing obstruction but no bleeding.



Figure 1: Figure 1 :Figure 2 :



Figure 2: Figure 3 :

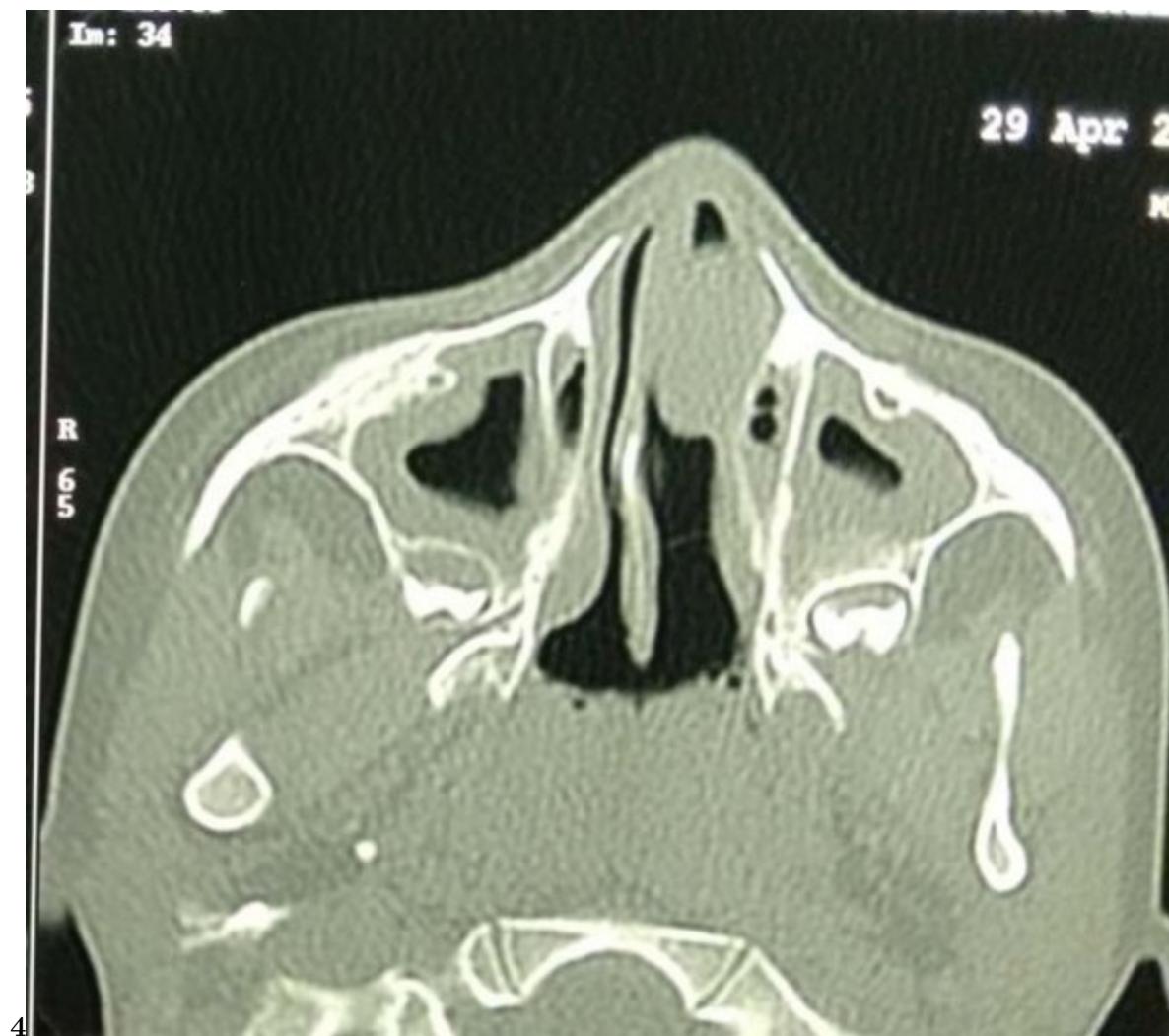


Figure 3: Figure 4 :

74 [Poncet and Dor] , A Poncet , L Dor . *Botryomycose Huraire Rev. Chir (paris)* 18 p. 996.

75 [Cummings otolaryngology and Head neck surgery] , *Cummings otolaryngology and Head neck surgery* 3. (5 th
76 edition)

77 [Th et al. (2014)] , Chi Th , C H Yuan , S T Chien . doi:10. 5152/balkanmed j.2014. 13178. *Balkan Med J* 2014
78 Mar. 2014 Mar. 31 (1) p. .

79 [Panduranga et al. (2014)] , M Panduranga , S Kamath , Jyothi Vijendra Shenoy , Kini . *Aswin Mukundan
80 Egyptian journal of Ear* Nov 2014. 15 (3) p. .

81 [Apa (2003)] *Goru k Eor arch otorhinolaryngology*, C Apa , DD . 2004 sep. 2003 Dec 3. 26 p. .

82 [Harizell ()] 'Granulation pyogenicum, (botryomycosis of French authors'. M Harizell . *The journal of cutaneous
83 disease* 1904. 22 p. .

84 [Iwata et al. ()] 'Hemangioma of the nasal cavity-a clinicopathologic study'. N Iwata , K Hattori , T Nakagawa ,
85 T Tsujimura . *AurrisNasus larynx* 2002. 29 (4) p. .

86 [Mussalli and Hopps ()] 'Johnson oralmpyogenis granuloma asa a complication of pregnancy and the use of
87 hormonal cintraceptives'. N G Mussalli , R M Hopps , NW . *International journal of gynecic and obstetrics*
88 1976. 14 (2) p. .

89 [Mills et al. ()] 'Lobular capillary hemangioma; the underlying lesion of pyogenic granuloma. A study of 73 cases
90 fromoral and nasal mucus membranes'. S Mills , P H Cooper , R E Fechner . *American journal of surgical
91 pathology* 1980. (5) p. .

92 [Vorbalas et al. ()] *Parikh case report pediatric Nasal capillary hemangioma*, Jordan M Vorbalas , John P Bent
93 , R Sanjay . ID 769630. 2012. 2012.

94 [Cohen ()] 'Pyogenic granuloma in children'. K , B A Cohen . *pediatric dermatology* 2004. 21 (1) p. .

95 [Gleeson] *Scott Brown's Otorhinolaryngology and Head neck surgery volume*, Michael Gleeson . 2 p. 1708.