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Case Report

A giant congenital ranula: ignorance leading to feeding difficulties

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ABSTRACT

The term "Ranula" originates from the Latin Word Rana which means "underbelly of a frog." Ranula are epithelial retention cyst or mucus extravasation pseudo cyst arising from the sublingual glands. They are rare in children. A one-year-old female was brought to paediatric surgery emergency OPD by her mother with complaints of swelling arising from oral cavity since birth, gradually increased in size to attain current size. Mother also gives History of difficulty in feeding. Clinical examination revealed a large protruded tongue, with a cystic swelling in the floor of the mouth measuring around 6×4 cm, with elevation of the tongue. Child was further evaluated; ultrasound was suggestive of ranula. Marsupialisation of the cyst was done. Intraoperatively, cyst fluid was aspirated for analysis and cyst wall was opened and excised, lateral margins of cyst were sutured to base of mouth. Cyst fluid analysis revealed elevated amylase and normal LDH levels. The post-operative period was uneventful. The histopathology report showed a pattern consistent with ranula. Child was followed up for a period of 1 year and there was no evidence of recurrence. We report a case of giant congenital ranula. The rarity of this condition in children and its atypical size make this case report unique. We treated the child with marsupialization and there was no recurrence noted. Hereby I would like to state that congenital symptomatic ranulas though rare can be managed with marsupialisation.

Keywords: Emergency, Mass, Paediatric, Marsupialization, Tongue

INTRODUCTION

The term "Ranula" originates from the Latin Word Rana which means "underbelly of a frog." Ranula are epithelial retention cyst or mucus extravasation pseudo cyst arising from the sublingual glands. They are rare in children. The common presentation is asymptomatic swelling at floor of the mouth.[1] Ranulas are categorized into three types-1. Sublingual, 2. plunging, and 3. Sublingual plunging ranulas. The most common type is "sublingual ranula".[2]

We describe a giant congenital intraoral sublingual ranula in a 1-year-old who presented to our emergency department with feeding difficulties due to large intra oral mass, whom we treated by marsupialization and had no signs of recurrence.

CASE REPORT

A one-year-old female child was brought to paediatric surgery Emergency by her mother with complaints of swelling arising from oral cavity since birth. Swelling was small at birth but gradually increased in size to attain current size. Mother also gives History of difficulty in feeding, and child was unable to close mouth due to the current size of swelling. No complaints of fever or pain. Clinical examination revealed a healthy-looking girl child, she had a large protruded tongue, with a cystic swelling in the floor of the mouth measuring around 6 × 4 cm, with elevation of the tongue; she had no palpable neck masses and the tongue mobility was normal (Figure 1 and 2).

Child was further evaluated with ultrasound, which revealed a swelling arising from right submandibular gland, features suggestive of ranula. Decision was made to proceed with marsupialisation of the cyst. Intraoperatively, cyst fluid was aspirated for analysis and cyst wall was opened and excised, Marsupialization of cyst was done (Figure 3 and 4). Cyst fluid analysis revealed elevated amylase and normal LDH levels. The post-operative period was uneventful and feeds were instituted on post-operative day 3. Child was discharged in stable condition. The histopathology report showed a cyst lined by columnar epithelium which was focally eroded and partly replaced by granulation tissue; it is composed of smooth muscle and surrounded by skeletal muscle, a pattern consistent with ranula. Child was followed up for a period of 1 year, child was doing well with no evidence of recurrence.

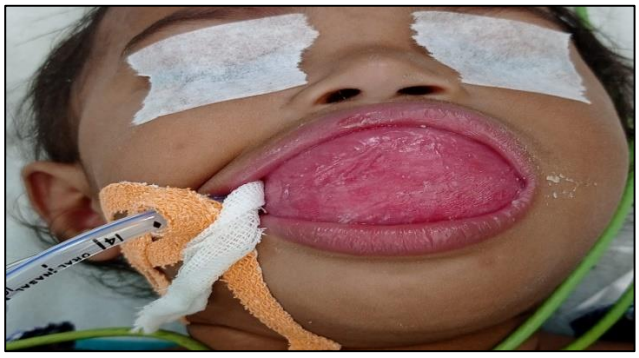

Figure 1: Clinical picture.

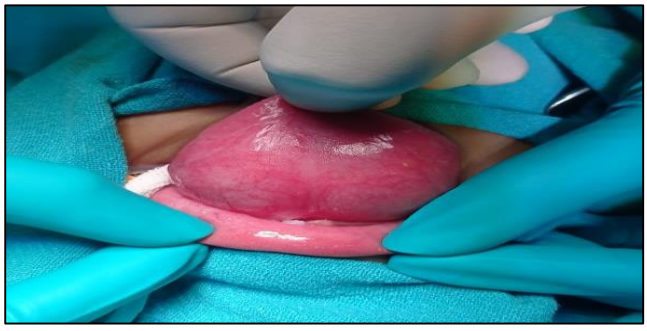

Figure 2: Clinical picture preoperatively.

Figure 3: Intraoperative image of cyst wall.

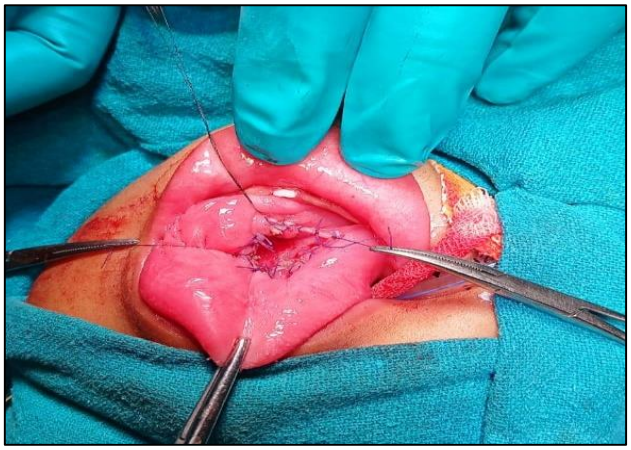

Figure 4: Image after marsupialization.

DISCUSSION

Ranulas are rare cystic masses that are essentially mucous retention pseudo cysts from an obstructed sublingual gland. They can be superficial or deep, also known as sublingual or plunging types, the most common type is superficial type.[3] Plunging ranulas are the deep form, they plunge by extending inferiorly below the free edge of the mylohyoid muscle to enter the cervical region. The estimated overall incidence of ranulas among the paediatric age group is 0.2 cases per 1000.[4] Ranulas peak in their frequency in-between first and the second decade of life.[4] Congenital ranulas are rare and have an incidence of 0.74%.[5] Congenital ranulas are usually fluctuant, painless, with a bluish translucent, slow growing swelling of the floor of the mouth.[6] They present with spectrum of symptoms ranging from Asymptomatic swellings to giant intraoral mass causing feeding difficulties or airway compromise. In our case, patients mother was ignorant about the swelling which led to feeding difficulties. Hence it is important for timely diagnosis and management. There are 2 symptomatic congenital ranulas reported in literature which were managed with marsupialization and other with excision. Ranulas usually occurs as the result of damage to duct or deeper areas of sublingual gland due to trauma or infection.[7,8] In children with ranulas, congenital predisposition has been suggested.[9] The aetiology of ranula still remains unclear.

Ranulas are diagnosed with a combination of history, clinical presentation, and imaging studies. Very rarely, congenital ranulas can be diagnosed prenatally also. The differential diagnosis includes lymphatic malformation, thyroglossal duct cyst, hemangioma, lipomas, branchial cyst, submandibular sialadenitis, laryngocele, dermoid cyst, vascular malformations, cervical thymic cysts, dermoid cysts, cystic hygroma and benign teratoma.[7,10] Congenital ranulas are misdiagnosed due to its rarity in occurrence in paediatric age group.

Management options are variable and includes aspiration, incision and drainage, marsupialization, injection of

sclerosing agents, excision of the ranula with or without excision of the ipsilateral sublingual gland. There are not many studies available in literature to state the treatment of choice in congenital ranulas due to its limited incidence. Congenital lesions which are diagnosed antenatally can be managed using an EXIT (exuterointrapartum treatment) procedure. [11,12] We have treated our patient with marsupialization and followed up the child for 1 year and there were no signs of recurrence.

CONCLUSION

We report a case of giant congenital ranula. The rarity of this condition in children and its atypical size make this case report unique. We treated the child with marsupialization and there was no recurrence noted. Hereby I would like to state that early consultation and surgical intervention like marsupialisation may prevent feeding difficulties.

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