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Sublingual Mucocele -A Successuful Case Study And Management Through Application Of Apamarga Kshara.

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ABSTRACT
Mucocele is a benign and asymptomatic pseudo cystic lesion that develops secondarily to the leakage or retention of mucous material from the salivary glands, mainly from the minor salivary gland. The prevalence rate of Mucocele is 2.4 cases per 1000 persons, with the highest percentage (70%) occurring in those ranging from 3-20 years old. If ignored, it can lead to further complications like excessive growth that may impede mastication and interfere with swallowing. In *Ayurveda* we can correlated with *Adhajihwika.* A 9-year-old male child came to OPD along with parents. According to his mother, his chief compliant of small painless swelling under his tongue since 1month with the difficulty of eating and speaking. Based on history and clinical examination the case was clinically diagnosed as Sublingual Mucocele (*Adhajihwika*).The patient treated with application of *Apamarga Kshara* along with *Gandusha* and oral medication up to 1month.After 1month of treatment, patient completely relived from signs and symptoms and also no recurrence till date. In contemporary science the treatment of Mucuocele is surgical line of treatment. Conventional surgeries and advanced techniques have their own limitations. Utilising *Ayurvedic* tools like *Kshara* in such conditions would give better results, by producing less complication, post-operative discomfort and scaring. Besides, chances of recurrence rate also minimal.

Keywords- *Adhajihwika, Gandusha, Apamarga Kshara*, Mucocele, Sublingual Mucuocele.

INTRODUCTION
A Mucocele is the most common minor salivary gland disease[1] and among the most common biopsied oral lesions in Pediatric patients[2, 3]. Clinically, a Mucocele appears as a round well-circumscribed painless swelling ranging from deep blue to mucosa alike in colour. The main causative factor is traumatic injury to the salivary glands, mainly from the minor salivary gland. The prevalence rate of Mucocele is 2.4 cases per 1000 persons, with the highest percentage (70%) occurring in those ranging from 3-20 years old[4]. In *Ayurveda* our *Acharyas* have given a wonderful description and management regarding *Jihwagata roga*.*Adhajihwika*[5] is one of the *Jihwagata roga* and compared with Sublingual Mucuocele.

CASE REPORT
Chief complaints-A 9-year-old male child came to our OPD on March 2023, along with parents. According to his mother, his chief compliant of small painless swelling under his tongue since 1month.
Associated complaints-Difficulty of eating and speaking.
Present complaints-According to patient's mother, he was apparently healthy before 1 month then she noticed small pinkish white colour swelling under his tongue and it is painless in nature. Later the patient experienced difficulty of eating and speaking due to that swelling. Prior to visiting our Hospital they had visited JSS hospital.Mysuru.they diagnosed as Sublingual Mucocele and advised surgical excision. But patient and attendants being scared of the surgical procedure and visited to our hospital for above complaints.
Past history-nothing significant.
Family history-nothing significant.
Birth history-full term.

History of trauma-Absent, But having habit like lip sucking.
ASTASTHANA PAREEKSHA
1. *Nadi Pariksha* (Pulse) -75/min
2. *Mutra Pariksha* (Urine)-5-6/day
3. *Mala Pariksha* (Faecal)-1/day
4. *Jihwa Pariksha* (Tongue)-*Aprakrutha*
5. *Shabda Pariksha* (Ear)-*Prakrutha*
6. *Sparsha Pariksha* (Temperature)-*Prakrutha*
7. *Drik Pariksha* (Eye) -*Prakrutha*
8. *Akriti Pariksha* (Built)-*Madhyama*

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TABLE NO-01 –EXAMINATION OF ORALCAVITY, EAR AND NOSE

SN	EXAMINATION		FINDINGS
1	Intraoral examination	On Observation	•Site of swelling-anterior ventral surface of the tongue. •Colour-pinkish white. •Number-single •Discharge-absent 
		On Palpation	•Tenderness-absent •Consistency- soft, fluid filled ,solitary flaccid growth •Measurement- about 10 mm × 8 mm on the anterior ventral surface of the tongue with an intact overlying mucosa.
2	Extra oral examination		did not show any swelling or lymphadenopathy
3	EAR EXAMINATION		NAD
4	NASAL EXAMINATION		NAD

FLOW CHART-01-*NIDANA* AND *SAMPRAPTHI* OF SUBLINGUAL MUCOCELE

NIDANA- Lip sucking habits

↓

SAMPRAPTHI –due to lip sucking habit

↓

Mechanical trauma to anterior ventral surface of tongue where the minor salivary gland (glands of Blandin and Nuhn) are located

↓

Outpouring of saliva into the surrounding tissues

↓

Formation of pseudo cyst

↓

Sublingual Mucocele

TABLE NO-02 –TREATMENT PROTOCOL AND POSOLOGY

S.N	PROCEDURE	MEDICATION AND DURATION
1	*KSHARA* APPLICATION	• Sufficient quantity of *Apamarga Kshara* application over Sublingual Mucocele. • Sitting -4sitting(1week gap)
2	*GANDUSHA*	• *Gandusha* with 1pinch Tankana bhasma with sukoshna jala for 1month(2times per day)
3	INTERNAL MEDICATION	• Tab Shivagutika-750mg- 1/2BD for 1month

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FIGURE NO- 1, 2, 3, 4, 5,-Procedure of Kshara karma-observation

TABLE NO-03- Procedure of *Kshara karma*-observation

S.N	Sittings of Kshara	IMAGE
1	**Before treatment**	
2	**After -1st sitting of *Apamarga Kshara* application**	
3	**after -2nd sitting of *Apamarga Kshara* application**	
4	**After -3rd sitting of *Apamarga Kshara* application**	

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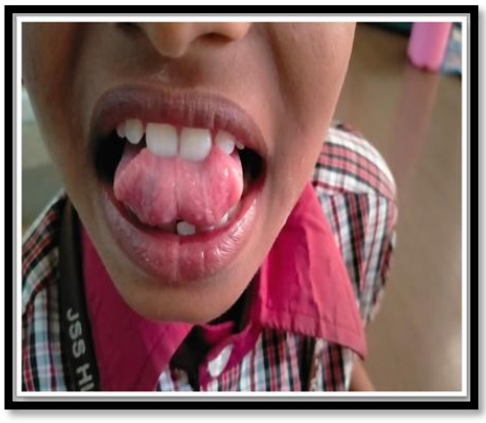
5	**After -4th sitting of *Apamarga Kshara* application**	

RESULT

- After 4th sitting of Kshara karma the Sublingual Mucocele was completely resolved and no recurrence.

FIGURE NO- 6,7-BEFORE AND AFTER TREATMENT

BEFORE TREATMENT **AFTER TREATMENT**

DISCUSSION

Mode of action

APAMARGA KSHARA[6]

•*Apamarga Kshara* generally contains Sodium, Potassium, Carbonate, Calcium oxide, Magnesium and Silica. The mode of action starts immediately after application of Kshara on the Sublingual Mucocele. *Apamarga Kshara* penetrates into the mucosal layer of lesion and destroys the tissue due to chemical cauterization property of Kshara.

• *Apamarga Kshara* coagulates the protein of tissue and causes the local necrosis of mucosa and ultimately, the necrosed tissue leads to fibrosis and thus controls engorgement by fixing the mucosa. The chance of infection does not occur due to antibacterial action of *Kshara.*

***Apamarga Kshara* procedure**

***Poorva karma* (pre-operative procedure)**-collection of drug and patient preparation.

Pradana karma (*pre-operative procedure*)-sufficient quantity of *Apamarga Kshara* taken from one end of the ear bud and apply over sublingual Mucocele up to 100 *matrakala* .

***Paschath karma* (post-operative procedure)**-after that cotton swab soaked in *Nimburasa is* used to wipe the *Kshara* over sublingual Mucocele fallowed by Gargle with lukewarm water.

GANDUSHA[7]

According to *Sushruta* when liquids can be moved to and fro in mouth is called *Kavala* while when mouth is completely filled with liquid so that it cannot be moved here and there is called *Gandusha*.

The medicated *Gandusha* balances the PH and get absorbed by increasing vascular permeability in oral mucosa. Thus it will help to reduce the inflammation and improve the disease healing process and proper salival secretions.[8, 9]

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TANKANA BASHMA[10]
Tankana bhasma (Purified Tankan/Sodium Borate) having a *Ksharana* (alkaline) property and also best Bleaching agent & Anti-septic, which helps in the removal of media for growth of pathogens.
•The results of in-Vitro antimicrobial study of Tankana reveals that Tankana was effective against bacterial strains E. coli, P. aeruginosa, S. aureus, S. pyogenes and Fungal strains Albicans and Niger[11].So this antimicrobial effect help to maintain the oral health.
•Tankana churna possesses anti-inflammatory action also.

TAB.*SHIVAGUTIKA*[12]
•According to *Bhaishajya Ratnavali Shivagutika* action like *Indriyapradana, Oja-Teja balaprada* and *Rasayana .Jihwa* is one of the *Rasanendriy*a so consuming *Shivagutika* has help to normal physiological action of *jihwa*. And also it has the properties like-Anti-inflammatory, Antitumor, Antioxidant and Immunobooster[13].
Sublingual Mucoceles are one of the most common benign soft tissue masses that occur in the oral cavity. The human Tongue consists of three groups of minor salivary glands such as the glands of Weber, the glands of von Ebner and glands of Blandin and Nuhn. Mucoceles can easily traumatize and become a strong source of irritation and annoyance to the patient. These lesions are often asymptomatic; however, as they grow in size, they can cause discomfort and interfere with speech and mastication.
•The diagnosis of Sublingual Mucocele is mainly clinical. In the present study, diagnosis of the Sublingual Mucocele of the glands of Blandin and Nuhn was made by the anatomical site, size and flaccid nature of the lesion. Salivary Mucoceles should be considered as the most frequent oral benign lesion encountered in children. Often, as stated, diagnosis can be made during the routine Pediatric Intraoral examination; thus, it is essential to expand the Medical and Dental personnel's awareness about salivary Mucoceles.
•To avoid Mucoceles on the tongue, it is necessary for parental attention to be given to children to prevent traumatic injuries and older children can wear mouth guards as a protective appliance to prevent injuries during sports. In contemporary science surgical excision is the treatment of choice for small Mucoceles and the larger ones may be treated by cryosurgery and laser ablation.
•*Yuktipramana* is very important to treat this type of cases and logically thinking of drug choice. In this case, without the help of any surgical procedure, *Ayurvedic* treatment made miracle result in the management of Sublingual Mucocele.

CONCLUSION
A Mucocele is the most common minor salivary gland disease and among the most common biopsied oral lesions in paediatric patients. Mucoceles rarely resolve on their own and surgical removal under local anaesthesia is required in most cases, surgical procedures may be very difficult to the child and the whole family may be disturbed. *Ayurveda* can definitely play a major role in treating such conditions without any surgical procedures, Moreover surgical procedures may be a financial burden in addition to the psychological emotions. Hence more researches have to be concentrated on such diseases which can be treated therapeutically by *Ayurvedic* means where the western medicine has no option other than surgery.

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