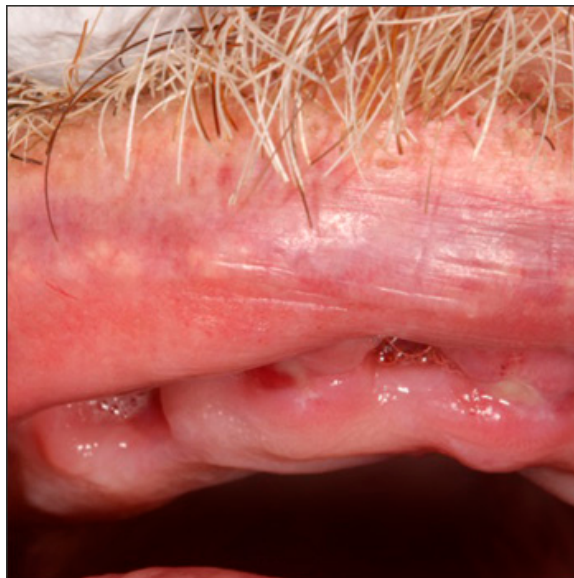


Incidental Yellow Papules in the Upper Lip Vermillion

Course Author(s): Michael A. Huber, DDS; Anne Cale Jones, DDS; H. Stan McGuff, DDS

Online Case: www.dentalcare.com/en-us/professional-education/case-challenge/case-challenge-053



The following Case Challenge is provided in conjunction with the UT Health San Antonio School of Dentistry faculty.

Case Summary

A 71-year-old male presents with multiple small yellow papules on the upper lip vermilion and right and left buccal mucosae.

After you have finished reviewing the available diagnostic information, make the diagnosis.

Diagnostic Information

History of Present Illness

Mr. Smith is a 71-year-old distraught white male who presents for a 1 week follow-up after having his maxillary teeth extracted. He is distraught because his dentist's office was just shut down over infection control violations and he is worried he may have been exposed to an infectious disease such as HIV or hepatitis. He relates no discomfort or pain. He has had inconsistent dental care over the past 5 years, and is financially strapped due to his medical problems. A review of his medical history reveals:

Medical History

- Adverse drug effects: penicillin administration results in hives
- Medications: Stalevo 100 6x/day, Glucovance 5mg/500mg QD
- Pertinent medical history: Parkinson disease x 6 months, diabetes type 2 x 20 years
- Pertinent family history: paternal - fatal MI age 55; maternal - diabetes type 2, died of CHF age 78
- Social history: 30 pack year history of cigarettes, stopped age 60; 2-4 mixed drinks per month; denies recreational drug exposure

Clinical Findings

His extraction sites are healing normally. Several small yellow papules are noted on the upper lip vermillion (Figure 1). Multiple 2x2 mm yellow colored, cauliflower shaped, papules are also noted on the right and left buccal mucosa (Figure 2). An incisional biopsy is performed in the left buccal mucosa and the tissue submitted for histopathologic examination.

Histopathologic Findings

The biopsy shows a mucosal soft tissue fragment consisting of parakeratinized stratified squamous surface epithelium with underlying fibrovascular connective tissue. Multiple glandular acinar lobules are noted below the surface epithelium (Figure 3). The glandular cells are ovoid to polygonal in shape with round central basophilic nuclei and abundant clear foamy cytoplasm. Focal central ducts are present (Figure 4).



Figure 1. Multiple yellow papule upper lip vermillion.



Figure 2. Multiple clusters of yellow papules left buccal mucosa.

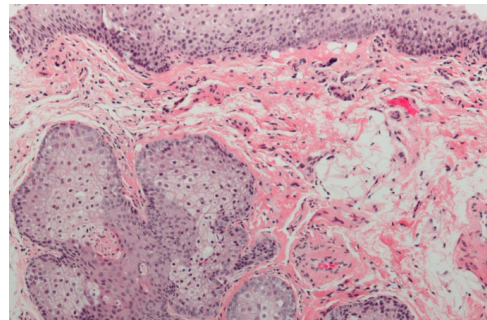


Figure 3. Low power image of specimen showing submucosal glandular lobules.

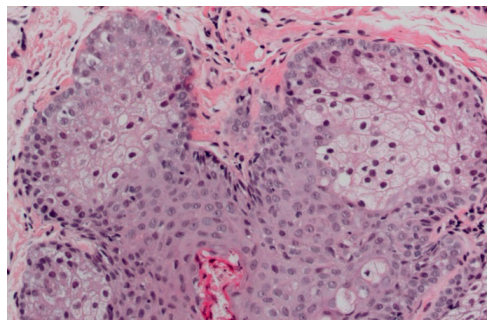


Figure 4. Medium power image of specimen demonstrating acinar lobules with glandular cells exhibiting abundant clear foamy cytoplasm. A central duct is present.

Select Diagnosis

Can you make the diagnosis

A 71-year-old male presents with incidental yellow papules in the upper lip vermillion.



Select the Correct Diagnosis

- A. Xanthomas
- B. Papillomas
- C. Sebaceous glands
- D. Lymphoid aggregates

Xanthomas

Choice A. Sorry, this is not the correct diagnosis.

Xanthomas are relatively common lesions that may arise in numerous locations. In the head and neck area they are most commonly found around the eyelids in older individuals. In this location they present as asymptomatic, yellowish papules or nodules. Xanthomas represent a localized accumulation of foamy macrophages that may or may not be associated with hyperlipidemia.¹ Histopathologic examination reveals diffuse aggregates of foam cells which are macrophages filled with lipid droplets. Scattered acute or chronic inflammatory cells may be seen interspersed between the foam cells. A similar lesion that contains foamy macrophages, verruciform xanthoma, does arise in the oral mucosa but this lesion most likely represents an inflammatory reaction to epithelial trauma.²⁻⁴ Xanthomas have not been reported in the oral mucosa and the histopathologic findings presented do not support this diagnosis.

Please re-evaluate the information about this case.

Papillomas

Choice B. Sorry, this is not the correct diagnosis.

Papillomas are benign proliferations of stratified squamous epithelium often associated with human papillomavirus (HPV), often HPV types 6 and 11.⁵ They may occur at any age and in either sex. The majority of cases arise as a single lesion and are often white in color due to excess keratin formation on the surface of the lesion. Any oral mucosal site may be affected. Histopathologic examination reveals numerous papillary projections composed of thickened stratified squamous epithelium surfaced by keratin. Each papillary projection contains a central core of vascularized fibrous connective tissue. Occasional squamous epithelial cells demonstrate perinuclear vacuolization (koilocytes), indicative of HPV infection. Papillomas should be conservatively excised and rarely recur.^{2,6-7} The presence of multiple yellow papules, without a papillary surface architecture, and the histopathologic findings presented do not support this diagnosis.

Please re-evaluate the information about this case.

Sebaceous glands

Choice C. Congratulations! You are correct.

Sebaceous glands are normal adnexal structures or epidermal appendages that are associated with hair follicles. In the skin they secrete sebum which acts as a lubricating agent for hair. Occasionally sebaceous glands may be found in an ectopic location such as the oral mucosa. In this location they are not associated with hair follicles. When sebaceous glands are found in the oral mucosa they are known as Fordyce granules. Fordyce granules present as multiple yellowish macules or papules that are commonly found on the vermilion of the upper or lower lips and on the buccal mucosa. Histopathologic examination reveals lobules of sebaceous glands that may or may not retain a communication with the overlying surface stratified squamous epithelium. The individual sebaceous cells vary in size and shape and contain a small central nucleus and a foamy cytoplasm. They are asymptomatic and do not need to be treated.^{2,8}

Lymphoid aggregates

Choice D. Sorry, this is not the correct diagnosis.

Lymphoid aggregates are common in the oral cavity but are confined to areas that contain lymphoid tissue such as the posterior lateral tongue, oropharyngeal wall (Waldeyer's ring), soft palate, and floor of the mouth. They appear as small submucosal nodules that may be yellowish to normal mucosa colored. Histopathologic examination reveals localized collections of lymphocytes with interspersed lymphoid follicles and reactive germinal centers.⁹ The presence of multiple yellow papules on the vermillion of the upper lips and on the right and left buccal mucosa, and the histopathologic findings presented, do not support this diagnosis.

Please re-evaluate the information about this case.

References

1. Rohrich RJ, Janis JE, Pownell PH. Xanthelasma palpebrarum: a review and current management principles. *Plast Reconstr Surg*. 2002 Oct;110(5):1310-4. doi: 10.1097/01.PRS.0000025626.70065.2B.
2. Neville BW, Damm DD, Allen CM, et al. *Oral and Maxillofacial Pathology*. 4th ed. St. Louis, MO: Elsevier. 2016.
3. Kimura M, Ohto H, Shibata A, et al. Clinicopathological and Immunohistochemical Characteristics of Verruciform Xanthoma of the Lower Gingiva: A Case Report. *J Clin Diagn Res*. 2016 Jun;10(6):ZD05-6. doi: 10.7860/JCDR/2016/15446.7950. Epub 2016 Jun 1.
4. Oliveira PT, Jaeger RG, Cabral LA, et al. Verruciform xanthoma of the oral mucosa. Report of four cases and a review of the literature. *Oral Oncol*. 2001 Apr;37(3):326-31.
5. Donà MG, Pichi B, Rollo F, et al. Mucosal and cutaneous human papillomaviruses in head and neck squamous cell papillomas. *Head Neck*. 2017 Feb;39(2):254-259. doi: 10.1002/hed.24575. Epub 2016 Sep 12.
6. Abbey LM, Page DG, Sawyer DR. The clinical and histopathologic features of a series of 464 oral squamous cell papillomas. *Oral Surg Oral Med Oral Pathol*. 1980 May;49(5):419-28.
7. Carneiro TE, Marinho SA, Verli FD, et al. Oral squamous papilloma: clinical, histologic and immunohistochemical analyses. *J Oral Sci*. 2009 Sep;51(3):367-72.
8. Fordyce JA. A peculiar affection of the mucous membrane of the lips and oral cavity. *J Cutan Genito-Urin Dis* 1896;14:413-19. doi:10.1001/archderm.1996.03890350023003 Accessed May 18, 2017.
9. Regezi JA, Sciubba JJ, Jordan RCK. *Oral Pathology Clinical Pathologic Correlations*. 7th ed. St. Louis, MO: Elsevier. 2017.

About the Authors

Michael A. Huber, DDS



Professor

Department of Comprehensive Dentistry
The University of Texas Health Science Center at San Antonio, School of Dentistry,
San Antonio, Texas

Dr. Michael A. Huber is a Professor of Oral Medicine, Department of Comprehensive Dentistry, the UTHSCSA School of Dentistry. He received his DDS from the UTHSCSA in 1980 and a Certificate in Oral Medicine from the National Naval Dental Center, Bethesda, Maryland in 1988. He is certified by the American Board of Oral Medicine. Dr. Huber served as Graduate Program Director in Oral Medicine at the National Naval Dental Center, Bethesda, Maryland. In addition he served as Specialty Leader for Oral Medicine to the Surgeon General of the United States Navy, Washington, DC; and Force Dental Officer, Naval Air Force Atlantic, Norfolk, Virginia.

Since joining the faculty in 2002, Dr. Huber has been teaching both pre-doctoral and graduate dental students at the UTHSCA School of Dentistry. In 2014, he was awarded the UTHSCSA Presidential Teaching Excellence Award. He is a Past President of the American Academy of Oral Medicine. Dr. Huber has spoken before many local, state, and national professional organizations. He has published over 70 journal articles, book chapters, and online postings.

Phone: (210) 567-3360

Fax: (210) 567-3334

Email: huberm@uthscsa.edu

Anne Cale Jones, DDS



Anne Cale Jones graduated from the University of Alabama in 1981 with the Bachelor of Science degree (Magna Cum Laude) in Natural Sciences. She received a Doctor of Dental Surgery degree (Magna Cum Laude) from the Medical College of Virginia, Virginia Commonwealth University in 1986. Following a three-year residency program in Oral and Maxillofacial Pathology at Booth Memorial Medical Center in Queens, New York, Dr. Jones joined the faculty at the University of Florida, College of Dentistry. In 1998, she became a faculty member at The University of Texas Health Science Center at San Antonio. She is currently a

Distinguished Teaching Professor in the Department of Pathology and is board certified by the American Board of Oral and Maxillofacial Pathology.

Email: jonesac@uthscsa.edu

H. Stan McGuff, DDS



H. Stan McGuff, D.D.S. is a Professor of Pathology in the School of Medicine at The University of Texas Health Science Center at San Antonio. He graduated from the Dental School at The University of Texas Health Science Center at San Antonio in 1977. Dr. McGuff practiced dentistry as an officer in the United States Air Force and as a general dentist in Live Oak, Texas. In 1993 Dr. McGuff completed a residency in general anatomic pathology and a fellowship in oral, head and neck pathology at The University of Texas Health Science Center at San Antonio. He has remained at The University of Texas Health Science Center at San Antonio as

a faculty member for 28 years. The main focus of his career has been diagnostic surgical pathology of the oral cavity, head and neck region. He is involved in graduate and undergraduate dental and medical education. His research interests include head and neck cancer, the immunopathology of Sjogren's syndrome, metabolic bone disease, bone wound healing and tissue interactions with biomaterials.

Email: mcguff@uthscsa.edu