



Diascopy in Oral Lesions: An Old Algorithm Revisited

Renu Tanwar*, Akshika Sharma and Suma GN

Department of Oral Medicine and Radiology, SGT Dental College and Hospital, Budhera, Gurgaon, Haryana, India

Abstract

The pigmented lesions in oral cavity or on skin have been a diagnostic challenge to the dermatologists and oral physicians alike. Many chair side investigations such as woods light, skin biopsy, diascopy, shave biopsy have been improvised to aid and facilitate appropriate diagnosis for such lesions. Diascopy has been long accepted diagnostic aid in clinical dermatology but ironically till date no exclusive data is available for use of diascopy in oral pigmented lesions. Through this clinical tip on diascopy in oral lesions, the author's aims to invoke the interest of oral physician to provide high quality care to patients with pigmented mucosal lesions. This clinical tip includes the principle, technique and indications and interpretation of diascopy test in orofacial pigmented lesions.

Keywords: Diascopy; Vitropression; Blanching; Vascularity; Pigmented lesions

Introduction

Pigmented lesions in orofacial region have varied clinical presentations and pose diagnostic challenge to the attending oral physician [1,2]. Diascopy is a simple blanch test performed with minimal equipment to help solve a confusion of diagnosing pigmented lesions and thus preventing any complication that may arise during their management. Diascopy is handy and quick tool for proper diagnosis of such lesions in clinical set up.

Principle

It is based on the principle that vascular lesions will blanch in response to pressure with a glass slide. The procedure of Diascopy aims at emptying the blood from the superficial vessels to determine whether the color of a lesion is due to blood present in the vessels or extravasated blood present in the tissues. Thus it determines the origin and nature of a lesion because the former will blanch on pressure and later will not [3-7].

OPEN ACCESS

*Correspondence:

Renu Tanwar, Department of Oral Medicine and Radiology, SGT Dental College and Hospital, Budhera, Gurgaon, Haryana, India, Tel: 8130354198;

E-mail: renuomdr@gmail.com

Received Date: 02 Oct 2017

Accepted Date: 10 Nov 2017

Published Date: 17 Nov 2017

Citation:

Tanwar R, Sharma A, Suma GN. Diascopy in Oral Lesions: An Old Algorithm Revisited. *J Dent Oral Biol.* 2017; 2(19): 1114.

ISSN: 2475-5680

Copyright © 2017 Renu Tanwar. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

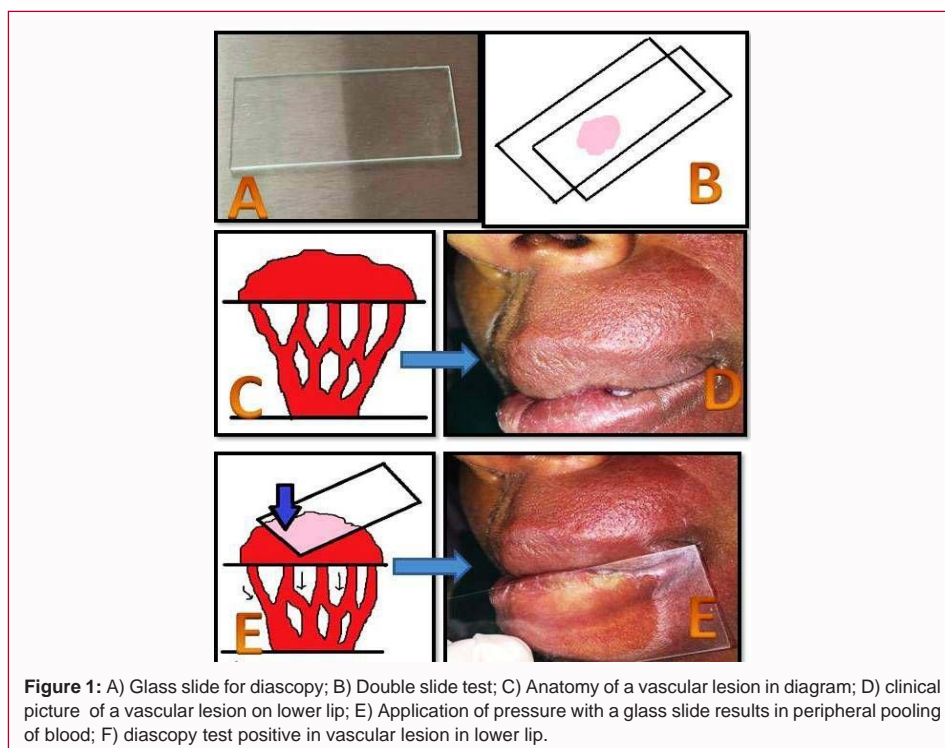


Figure 1: A) Glass slide for diascopy; B) Double slide test; C) Anatomy of a vascular lesion in diagram; D) clinical picture of a vascular lesion on lower lip; E) Application of pressure with a glass slide results in peripheral pooling of blood; F) diascopy test positive in vascular lesion in lower lip.

Types of Diascope

Initially for many years a curved glass diascope was used in Europe. Still many practitioners use a simple microscopic glass slide as a tool for diascopy. The European type diascope was later modified and was made of clear plastic in a curved fashion to make it more suitable for curved areas [8].

Procedure

Diascopy is a simple procedure which does not require complicated equipment. It involves the application of firm pressure of a hard, transparent instrument like a plastic spatula or clean glass slide or two microscopic slides, which is pressed onto the surface of the lesion gently to produce temporary blanching. It may also involve using a glass capsule of local anesthetic, or rigid strip of plastic to depress the lesion in order to observe blood dissipating intravascularly, giving the blanched appearance to tissue [9,10]. The slide is held onto the lesion with gentle pressure for 1-2 mins. During this period the blanching of the surface of colored lesion and pale appearance which blends with surrounding normal tissue is an evidence of a positive test (Figure 1A). As soon as the slide is removed, the lesion will appear pale or blanched for few seconds before it slowly starts refilling again from its feeder vessels (Figure 1B). By applying varying degree to pressure, we can observe the vessels blanch and fill (Figure 1C-1F).

Modification

Double glass slide can be used in sensitive regions such as oral cavity to avoid breaking of single slide under pressure and resulting trauma to mucosa.

Indications

1. Performing diascopy is an essential requirement on a colored lesion. It helps differentiate a vascular lesion from a non-vascular pigmented lesion [5].
2. To differentiate purpuric lesions (due to extravasation of blood) from erythema (due to vasodilation). Erythema will show blanching on diascopy while purpuras will not [6].
3. In granulomatous lesions to observe true color of the lesion, e.g.: lupus vulgaris lesions show apple jelly nodules on blanching [6].
4. It can be of use to detect the glassy brown appearance seen in papules of sarcoidosis, tuberculosis and other granulomatous lesions [7].
5. Vascular lesions secondary to liver cirrhosis [9].
6. Before carrying out any biopsy or excision of a pigmented lesion in oral cavity or skin.
7. To avoid any intra-operative complications due to blood overflow from a vascular lesion.

Indicative Lesions

Diascopy can be performed to diagnose various lesions such as:

1. Hemangiomas- all types of hemangiomas will give a positive diascopy test. Although this test is not very reliable in cases of capillary hemangiomas.
2. A-V Malformations- the vascular malformations that could be high flow lesions.
3. Angiomas- several pigmented lesions which are a result of subcutaneous angiomas can be determined eg: Portwine stains
4. Telangiectasias- in these cases, the central feeder vessel may be distinguished.
5. Varicosities- Superficially dilated vessels can also be observed.
6. Granulomatous- Granulomas in cutaneous sarcoidosis reveal an 'apple jelly' picture on application of glass slide pressure [11].

Conclusion

Diascopy is an adjunctive diagnostic aid in pigmented lesions in orofacial region and if done with proper technique and armamentarium, it will surely help in proper diagnosis and patient management.

References

1. Thappa DM. Essentials in Dermatology. Second edition. India: Jaypee Brothers medical Publishers; 2009.
2. Sams WM, Lynch PJ. Principles and practice of dermatology. 2nd edition. London: Churchill Livingstone Inc; 1996.
3. Mc Kay M. Office technique for dermatologic diagnosis. Skin and appendages; 1990.
4. Schachner LA, Hansen RC. Principles of diagnosis in pediatric dermatology. In: Pediatric Dermatology. Third edition. USA: Mosby; 2005.
5. Greenberg MS, Glick MM, Ship JA. Burketts Oral Medicine. 11th edition; 2008.
6. Khanna N. Illustrated synopsis of dermatology and sexually transmitted diseases. 4th edition. Amsterdam: Elsevier; 2014.
7. Garg VK, Sardana K. Comprehensive textbook of dermatology. 1st edition. India: Peepee Publishers; 2010.
8. Goldman L, Suskind R. Plastic diascope for dermatology. *AMA Arch Derm Syphilol.* 1952;66(3):396.
9. Nadeau C, Stoopler ET. The clinical value of diascopy. *J Can Dent Assoc.* 2013;79:d11.
10. Rudd M, Eversole R, Carpenter W. Diascopy: a clinical technique for the diagnosis of vascular lesions. *Gen Dent.* 2001;49(2):206-9.
11. Matos D, Coelho R. "Apple Jelly" Sign: Diascopy in Cutaneous Sarcoidosis. *Acta Med Port.* 2015;28(3):394.