

## Topical Hemostatic Agents - A simple and Effective Way of Managing Bleeding in Dentistry

**Nilima Agrawal\***

*Assistant Professor, Department of Oral and Maxillofacial Surgery, V.S.P.M's Dental College and Research, Nagpur, Maharashtra, India*

**\*Corresponding Author:** Nilima Agrawal, Assistant Professor, Department of Oral and Maxillofacial Surgery, V.S.P.M's Dental College and Research, Nagpur, Maharashtra, India.

**Received:** June 28, 2017; **Published:** July 04, 2017

### Abstract

Hemorrhage during any of the dental procedure is mainly due to local causes such as trauma to the tissue but it can also be due to underlying systemic diseases such as bleeding disorders, clotting disorders, hypertension, patient under anti-platelets, anticoagulants, antithrombotic medications etc. Bleeding can be from hard tissue or soft tissue; arterial, venous or from capillary. It is vital to search for source of bleeding as different hemostatic agents are available to control the bleeding depending upon the source of bleeding. Uncontrolled bleeding poses a great threat to the patient and can lead to serious consequences. Thus, it is important for dental surgeons to have information and awareness regarding the patients underlying systemic diseases, medications and risk involved during any dental procedures. Preventing measures should be taken accordingly prior to any dental or surgical procedures. Dental Surgeon should have knowledge regarding different variety of available hemostatic agents, their indications and how to use to them.

**Keywords:** Hemostasis; Local Hemostatic Agents; Dentistry; Hemorrhage; Topical Hemostatic Agents

Hemorrhage during any of the dental procedure is mainly due to local causes such as trauma to the tissue but it can also be due to underlying systemic diseases such as bleeding disorders, clotting disorders, hypertension, patient under anti-platelets, anticoagulants, antithrombotic medications etc. Thus, proper history taking of the patient is an out most important before planning any dental or oral surgical procedures. If any of the systemic condition is present then it is advisable to take physician consultation before starting any procedure. Bleeding can be from hard tissue or soft tissue; arterial, venous or from capillary. It is essential to search for source of bleeding as variety of hemostatic agents are available and can be used depending upon their indications.

Uncontrolled bleeding poses a great threat to the patient and can lead to serious consequences. Thus, it is important for dental surgeons to have knowledge regarding hemostatic agents, their indications and how to use to them. Dental surgeon should always be prepared to manage bleeding and it is advisable to keep topical hemostatic agents always available in their clinical setup.

Hemorrhage can be due to local or systemic etiology. If it's due to systemic cause such as coagulopathies then along with topical application of hemostatic agents, systemic hemostatic agents such as systemic hemostatic agents such as whole blood, platelet rich plasma, fresh frozen plasma, coagulation factor replacement therapy, desmopressin, anti-fibrinolytic drugs, ethamsylate etc should also be considered under the supervision of the physician or hematologist [1,2].

Local hemostatic measures can be mechanical (Pressure pack, Hemostat, Suturing), thermal (electrocautery, cryosurgery, Lasers) and chemical agents. Pressure packs should be tried first, it counteracts the hydrostatic pressure within the bleeding vessel until clot can form

and occlude the bleeding orifice. It should be checked after at least five minutes and not repeatedly. Hemostats, electrocautery, cryosurgery etc. are generally useful in major oral surgical procedures.

Topical chemical hemostatic agents can be passive or active [3]. Passive hemostatic agents form a matrix by providing a meshwork to aggregate the platelets and form a stable clot. Their larger surface area gets in contact with blood the agent swells since it is hygroscopic and exerts pressure and hemostasis is achieved. They are only suitable for use in patients who have an intact coagulation cascade. Examples of passive agents are Gelatin Matrix (Gelfoam), Oxidize Cellulose (oxycel), and Oxidize Regenerative Cellulose (Sugicel).

Active hemostatic agents induce a clot since they directly participate in the coagulation cascade and are biologically active. Active agents such as Thrombin are useful choice for patients who are receiving antiplatelet and/or anticoagulation medications. An active agent can be combined with a passive agent such as Gelatin based products to improve the overall hemostasis [4].

Thus, it can be concluded that hemostasis is an essential and very significant aspect of Dental procedures. Local hemostatic agents are very useful in the management of post-operative bleeding in dentistry with congenital hematologic disorders or patients on anticoagulation therapy. Thus, before stoppage of anticoagulant therapy risk against benefit of withdrawing of medications should be weighed and decision should be taken in consensus with physician.

### Conflict of Interest

None.

### Bibliography

1. United Kingdom Haemophilia Centre Directors Organization Executive Committee. "Guidelines on therapeutic products to treat haemophilia and other hereditary coagulation disorders". *Haemophilia* 3 (1997): 63-77.
2. Mannucci PM. "Desmopressin (DDAVP) in the treatment of bleeding disorders: the first twenty years". *Haemophilia* 6.1 (2000): 60-67.
3. Santhosh Kumar MP. "Local hemostatic agents in the management of bleeding in oral surgery". *Asian Journal of Pharmaceutical and Clinical Research* 9.3 (2016): 35-41.
4. Samudrala S. "Topical hemostatic agents in surgery: A surgeon's perspective". *AORN Journal* 88.3 (2008): S2-S11.

**Volume 12 Issue 2 July 2017**

**© All rights reserved by Nilima Agrawal.**