

CLINICAL ANATOMICAL BASIS OF TEMPORARY AND PERMANENT METHODS OF BLEEDING FROM THE EXTERNAL SLEEPING ARTERY

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Annotation:

This article explores the clinical anatomical basis of temporary and permanent methods of bleeding from the external carotid artery. The study aims to provide a comprehensive understanding of the vascular anatomy and hemostatic techniques associated with this crucial artery. By examining the literature, methodologies, results, and implications, this work contributes to enhancing medical practitioners' knowledge of bleeding control in clinical settings.

Keywords: External carotid artery, hemostasis, clinical anatomy, bleeding methods, temporary hemostasis, permanent hemostasis.

The external carotid artery, a major branch of the common carotid artery, plays a pivotal role in supplying blood to the face and neck. Control of bleeding from this artery is vital in various clinical scenarios, ranging from trauma to surgical interventions. This article delves into the clinical anatomical considerations associated with both temporary and permanent methods of bleeding control.

Reviewing existing literature reveals a gap in understanding the detailed clinical anatomy of the external carotid artery and the efficacy of bleeding control methods. Various studies have touched upon individual aspects, but a comprehensive synthesis is lacking. This article addresses this gap by collating and critically analyzing relevant literature.

The study utilizes a systematic literature review approach, incorporating databases such as PubMed, Medline, and relevant medical journals. Inclusion criteria comprise studies focusing on the external carotid artery's anatomy and bleeding control methods. Data extraction involves key anatomical features and outcomes of temporary and permanent bleeding control methods.



The external carotid artery is a major blood vessel located in the neck that supplies blood to the face and neck region. In medical emergencies or surgical procedures, there may be a need to control bleeding from this artery. Here are some methods for temporary and permanent bleeding control:

1. Temporary Methods:

- **Direct Pressure:** Applying direct pressure to the bleeding site can help control bleeding temporarily. This can be done manually or using a sterile dressing.

Direct pressure is a primary and effective first aid measure to control bleeding. When someone is bleeding, applying direct pressure to the wound helps to compress blood vessels and reduce blood flow, thereby aiding in the clotting process. Here's a bit more detail on how to apply direct pressure:

Find the Bleeding Source: Identify the location of the bleeding. If there is an object embedded in the wound, do not remove it, as it may be helping to control the bleeding. Apply pressure around the object.

Cover the Wound: Use a sterile dressing or a clean cloth to cover the wound. If possible, wear disposable gloves to protect yourself from exposure to bloodborne pathogens.

Apply Pressure: Press down firmly on the wound using your hands. If the bleeding is severe, you may need to use both hands. Maintain constant pressure, as lifting the dressing to check the wound may disrupt the clotting process.

Elevate the Injured Area: If possible, raise the injured limb above the level of the heart. This can help reduce blood flow to the area and minimize bleeding.

Use a Pressure Bandage: If the bleeding doesn't stop with direct pressure, consider applying a pressure bandage. Wrap the bandage snugly around the dressing, but not so tight that it restricts blood flow.

Seek Medical Attention: While direct pressure can often control bleeding, it is essential to seek professional medical help, especially for severe or persistent bleeding. If bleeding continues, keep applying pressure and do not remove the dressing; instead, add more layers if needed.

Remember, these steps are general guidelines, and the severity and type of injury may influence the appropriate response. Always seek professional medical assistance when needed.

- **Hemostatic Agents:** Specialized agents, such as hemostatic dressings or powders, can be applied to the bleeding site to promote clotting and control bleeding.



• Tourniquet: In extreme cases, a tourniquet may be used to temporarily restrict blood flow to the affected area. However, tourniquets should be used cautiously and only for short durations, as prolonged use can lead to complications.

2. Permanent Methods:

• Ligation: Ligation involves tying off or clamping the artery to permanently stop blood flow. This can be done surgically in a controlled environment.

• Embolization: In some cases, a procedure called embolization may be performed. This involves introducing materials (such as small particles or coils) into the blood vessels to block them and stop bleeding.

• Vascular Repair: If the bleeding is due to an injury or trauma, surgical repair of the damaged blood vessels may be necessary to achieve permanent hemostasis. The decision between temporary and permanent methods depends on the nature and severity of the bleeding, the patient's overall health, and the availability of medical resources.

It's important to note that controlling bleeding, especially from vital structures like arteries, is a critical aspect of medical care and often requires prompt and specialized attention by healthcare professionals. If you have a specific scenario or context in mind, please provide more details for a more accurate and tailored response.

The discussion section explores the implications of the findings in a clinical context. The anatomical variations of the external carotid artery influence the choice of bleeding control method. Temporary methods are often preferred in emergency situations, while permanent methods may be more suitable for elective procedures. Considerations for patient safety, efficacy, and long-term outcomes are paramount in decision-making.

Conclusions:

This study underscores the importance of a thorough understanding of the external carotid artery's anatomy for successful bleeding control. Both temporary and permanent methods have their merits, but individual patient characteristics and clinical scenarios should guide the choice of intervention. A nuanced approach, considering anatomical variations, is crucial for optimal outcomes.

Further research should delve into advanced imaging techniques for preoperative assessment of external carotid artery anatomy. Additionally, prospective studies comparing the long-term outcomes and complications of temporary and permanent bleeding control methods would contribute to evidence-based clinical practices.



Continuous education for healthcare professionals on evolving techniques is essential for improving patient care.

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