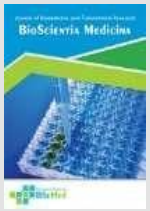
eISSN (Online): 2598-0580



Bioscientia Medicina: Journal of Biomedicine & Translational Research

Journal Homepage: www.bioscmed.com

Pre- and Perioperative Optimization of a Geriatric Patient on Antithrombotic Therapy Undergoing Dermatologic Electrosurgery: A Case Report

Laila Kurnia Fitri[1*], Subagio[1]

[1]Department of Dermatovenerology, H. Abdul Manap Regional General Hospital, Jambi, Indonesia

ARTICLE INFO

Keywords:
Antithrombotic
Electrosurgery
Geriatric
Skin Surgery

***Corresponding author:**
Laila Kurnia Fitri

E-mail address:
lailakurniafitri@gmail.com

All authors have reviewed and approved the final version of the manuscript.

https://doi.org/10.37275/bsm.v9i5.1291

A B S T R A C T

Background: Electrosurgery is a common and effective technique for removing skin lesions and achieving hemostasis in dermatologic surgery. However, managing patients on antithrombotic therapy, especially geriatric patients with comorbidities, presents a significant challenge. This case report highlights the importance of meticulous pre- and perioperative optimization in such patients to ensure safe and successful outcomes. **Case presentation:** A 69-year-old male patient with a history of congestive heart failure (CHF), Non-ST elevation myocardial infarction (NSTEMI), type 2 diabetes mellitus, and hypertension presented with a nevus exhibiting cornu cutaneous. The patient had been on long-term aspirin therapy. The case discusses the complexities involved in deciding whether to discontinue aspirin, weighing the risks of bleeding against the potential for thrombotic events. After a three-week delay and consultation with an internist to address elevated coagulation parameters, the electrocauterization excision was performed successfully. **Conclusion:** This case underscores the critical role of multidisciplinary collaboration and evidence-based decision-making in the perioperative management of geriatric patients on antithrombotic therapy undergoing dermatologic procedures. It emphasizes the need for individualized risk assessment and optimization strategies to balance the competing risks of bleeding and thrombosis.

1. Introduction

Cutaneous lesions represent a significant proportion of dermatological presentations, encompassing a broad spectrum of benign, premalignant, and malignant conditions. The accurate diagnosis and appropriate management of these lesions are paramount to ensure optimal patient outcomes. Among the diverse array of skin lesions encountered in clinical practice, nevi, or melanocytic nevi, are exceedingly common. These benign proliferations of melanocytes, the pigment-producing cells of the skin, are ubiquitous in the human population, with most individuals developing multiple nevi throughout their lifespan. While the majority of nevi remain stable and asymptomatic, they can undergo various morphological changes or be associated with the development of secondary lesions, presenting diagnostic and therapeutic challenges. Cornu cutaneum, also known as a cutaneous horn, is a relatively uncommon clinical entity characterized by a conical projection above the skin surface, composed of compacted keratin. This distinctive lesion is not a diagnosis itself but rather a descriptive term for the clinical manifestation of underlying pathology. The base of a cornu cutaneum may be associated with a wide range of benign, premalignant, or malignant skin lesions. Common benign conditions underlying cornu cutaneum include viral warts, seborrheic keratoses,

and actinic keratoses. Premalignant lesions, such as actinic keratoses, and malignant lesions, including squamous cell carcinoma, basal cell carcinoma, and rarely, malignant melanoma, can also be found at the base of a cutaneous horn. Therefore, a thorough evaluation of the underlying lesion is crucial to determine the appropriate management strategy.[1-4]

The clinical presentation of a nevus in conjunction with a cornu cutaneum, as described in this case, necessitates a careful and systematic approach. The coexistence of these two entities raises several important considerations. Firstly, it is crucial to determine whether the cornu cutaneum has arisen from the nevus itself or from an adjacent skin structure. The origin of the cornu cutaneum has significant implications for the differential diagnosis and subsequent management. If the cornu cutaneum originates from the nevus, it could represent a benign proliferative process within the nevus or, more concerningly, a malignant transformation. Malignant melanoma, a potentially life-threatening form of skin cancer, can arise from pre-existing nevi. The risk of malignant transformation in a nevus is generally low, but certain clinical features and risk factors can increase this risk. These risk factors include a large number of nevi, a history of atypical nevi, a family history of melanoma, and excessive sun exposure. Any change in the size, shape, color, or texture of a nevus, particularly if accompanied by bleeding, itching, or ulceration, should raise suspicion for malignant transformation. In the context of a nevus with a cornu cutaneum, the presence of rapid growth, irregular borders, or changes in pigmentation within the nevus should prompt a thorough evaluation for melanoma.[5-7]

Secondly, the presence of a cornu cutaneum can obscure the underlying lesion, making it difficult to assess the nevus fully. The keratinous projection can mask subtle changes in the nevus, such as changes in color or borders, which are important indicators of malignant transformation. Therefore, careful removal of the cornu cutaneum is often necessary to allow for a complete examination of the underlying nevus. The management of a nevus with cornu cutaneum depends on the clinical features and the underlying pathology. If the lesion is deemed to be benign, conservative management with excision of the lesion and histological confirmation may be sufficient. However, if there is suspicion for malignancy, a more aggressive approach, such as wide local excision with appropriate margins, may be necessary. Histopathological examination of the excised tissue is essential to confirm the diagnosis and to rule out malignancy.[8-10] This case report presents the clinical scenario of a 69-year-old male who presented with a lump-like protrusion above a pigmented nevus between the right eyebrow and eyelid.

2. Case Presentation

A 69-year-old male presented to the clinic with complaints of periorbital and eyelid swelling. This elderly gentleman, retired and otherwise engaged in his daily activities, represents a demographic at increased risk for a variety of age-related comorbidities and potential malignancies. Understanding the patient's age is crucial as it informs the likelihood of certain disease processes. For instance, the incidence of cardiovascular disease, certain cancers, and chronic kidney disease increases significantly with age. Furthermore, physiological changes associated with aging can alter the presentation of symptoms and the body's response to treatment. The male gender of the patient is also a relevant factor. Certain disease patterns, such as specific malignancies and cardiovascular conditions, exhibit gender-based differences in prevalence and presentation. For example, while both men and women are susceptible to heart failure, the underlying etiologies and clinical manifestations may differ. The patient's chief complaint of a "lump-like protrusion above a pigmented nevus between the right eyebrow and eyelid for the past two weeks" is a critical starting point for our investigation. This localized swelling, rapidly progressing over a short period, raises concerns for an inflammatory or neoplastic process. The description of the lesion as "lump-like" suggests a solid or semi-solid

mass rather than a purely fluid-filled swelling. The location, involving the periorbital region, is clinically significant due to the proximity to vital structures, including the eye and surrounding tissues. A detailed history of present illness (HPI) further elucidates the nature of the patient's complaint. The patient reports nevi present for several years with no prior changes. This suggests the recent onset of the swelling is a new development, rather than a chronic process. The rapid progression over two weeks, from initially small to progressively increasing, is a key feature that warrants urgent attention. This rapid growth pattern is concerning for malignancy, particularly given the location and the patient's age. The absence of tenderness, guarding, or burning sensation is notable. While these symptoms are often associated with inflammatory processes, their absence does not exclude such etiologies. It is possible that the inflammatory process is in its early stages or that the patient has a reduced pain perception due to age or other factors. The patient's past medical history (PMH) is significant and includes several chronic conditions. The presence of congestive heart failure (CHF) for the past five years indicates underlying cardiovascular compromise. CHF can lead to fluid retention and edema, which could potentially contribute to the patient's periorbital swelling. However, the localized nature and rapid progression of the swelling make this less likely to be the sole cause. A non-ST elevation myocardial infarction (NSTEMI) five years prior is another indicator of significant cardiovascular disease. This history underscores the importance of considering cardiovascular risk factors in the patient's overall management. Type 2 diabetes mellitus, also present for five years, is a major risk factor for a variety of complications, including micro- and macrovascular disease. Diabetic nephropathy, for example, can lead to edema and proteinuria. Furthermore, diabetes can impair wound healing and increase the risk of infections. Hypertension, also a five-year diagnosis, is another significant cardiovascular risk factor. Uncontrolled hypertension can contribute to CHF and exacerbate other cardiovascular conditions. The patient's medication list provides further insight into his medical management. Amlodipine 10 mg daily is a calcium channel blocker used to treat hypertension. Lisinopril 20 mg daily is an angiotensin-converting enzyme (ACE) inhibitor, also used for hypertension and CHF. Metformin 500 mg twice daily is a biguanide used to manage type 2 diabetes. This medication regimen suggests a focus on controlling blood pressure and glucose levels, reflecting the patient's chronic conditions. The patient's vital signs are within normal limits, with a blood pressure of 125/80 mmHg, heart rate of 77 beats per minute, respiratory rate of 20 breaths per minute, and temperature of 36.5°C. These stable vital signs are reassuring and suggest that the patient is not in acute distress. However, it is important to note that normal vital signs do not exclude the presence of significant underlying pathology. The dermatological examination reveals a solitary lesion in the right supraorbital region. This localized finding is consistent with the patient's chief complaint and further emphasizes the need for a thorough evaluation of this area. The lesion is described as multiple nodules arranged in a linear or arcuate fashion. This arrangement suggests a possible lymphatic spread or a process following a specific anatomical pathway. The dark brown color of the lesion is consistent with the patient's reported nevi. However, the presence of new nodules within or adjacent to a pre-existing nevus raises concern for malignant transformation. Verrucous changes within the lesion indicate a possible alteration in the skin's surface texture. Verrucous lesions are often associated with viral infections or certain types of skin cancer. The presence of firm and nontender nodules on palpation suggests a solid or semi-solid mass. The lack of tenderness is consistent with the patient's report in the HPI. However, firmness is a concerning finding, as it suggests a possible neoplastic process. The patient's laboratory results, including complete blood count (CBC), glucose levels, and coagulation studies, are reported as normal. However, it is important to note that the provided information is limited. A more detailed analysis of the CBC, including differential

counts, would be beneficial. Similarly, specific glucose levels and coagulation parameters, such as international normalized ratio (INR) and prothrombin time (PT), would provide a more comprehensive assessment. The initial coagulation studies revealed an elevated activated partial thromboplastin time (APTT) of 64.5 seconds and an elevated INR of 1.14. These findings suggest a possible coagulation abnormality, which could be due to various factors, including medication use, liver disease, or a clotting disorder. The subsequent coagulation studies, performed after three weeks of aspirin cessation, showed a normalization of APTT (31.7 seconds) and INR (1.12), as well as a normal PT (11.3 seconds). This suggests that the initial coagulation abnormalities were likely related to aspirin use. The clinical diagnosis of "nevus with acute inflammation" is based on the patient's history, physical examination, and initial laboratory findings. However, this diagnosis should be considered provisional, and further investigations are warranted to rule out other possible etiologies, including malignancy (Table 1).

The cornerstone of the preoperative management in this case was the meticulous handling of the patient's antithrombotic therapy, specifically the discontinuation of aspirin. This decision was crucial due to the inherent risk of bleeding associated with surgical procedures, particularly electrocautery excision, in a patient with a history of cardiovascular disease and previous NSTEMI. Aspirin, a non-selective cyclooxygenase inhibitor, irreversibly acetylates platelet cyclooxygenase, thereby inhibiting thromboxane A2 production and subsequent platelet aggregation. This antiplatelet effect, while beneficial in preventing thromboembolic events, significantly increases the risk of perioperative bleeding. The initial plan involved discontinuing aspirin 80 mg once daily one week prior to the scheduled procedure date. This timeframe was based on the understanding that it takes approximately 7-10 days for platelet function to return to normal after aspirin cessation, reflecting the turnover of platelets in the circulation. However, the patient's initial coagulation studies revealed an elevated activated partial thromboplastin time (APTT) of 64.5 seconds and an elevated international normalized ratio (INR) of 1.14. These findings suggested a potential underlying coagulopathy, necessitating a more cautious approach. Consequently, a further two-week discontinuation of aspirin was advised, resulting in a total of three weeks off aspirin before the procedure. This extended period allowed for a more complete restoration of platelet function and a reduction in the risk of intraoperative and postoperative bleeding. The decision to discontinue aspirin was not taken lightly, given the patient's history of cardiovascular disease. To mitigate the potential risk of thromboembolic events, a referral to an internist was made. This consultation aimed to discuss antithrombotic management comprehensively and assess the patient's overall risk. The internist's evaluation would have included a review of the patient's cardiovascular history, current medications, and risk factors for thromboembolism. This multidisciplinary approach ensured that the patient's cardiovascular health was adequately addressed while minimizing the risk of bleeding during the surgical procedure. The surgical procedure involved the electrocautery excision of the nevus with cornu cutaneum. The preparation of the surgical field with 10% povidone-iodine was a critical step in minimizing the risk of postoperative infection. Povidone-iodine is a broad-spectrum antiseptic that is effective against a wide range of bacteria, fungi, and viruses. The use of local anesthesia, administered via infiltration with 2 ml of lidocaine, ensured patient comfort during the procedure. Lidocaine, a local anesthetic, blocks nerve conduction by inhibiting sodium influx into nerve cells, thereby preventing the transmission of pain signals. Electrocautery excision was chosen as the surgical technique due to its ability to simultaneously excise the lesion and achieve hemostasis. Electrocautery uses high-frequency electrical current to cut and coagulate tissue. This technique is particularly useful for small skin lesions, as it minimizes bleeding and allows for precise tissue removal. The initial attempt at hemostasis involved

electrocautery in coagulation mode and direct pressure with gauze. This approach is standard practice in dermatologic surgery, as it effectively seals small blood vessels and prevents bleeding. However, in this case, oozing persisted despite electrocautery and direct pressure. This finding suggests that the lesion may have been more vascular than initially anticipated or that the patient's underlying coagulopathy, despite aspirin discontinuation, contributed to the persistent bleeding. To achieve adequate hemostasis, wound closure with a simple suture technique using silk 1.0 sutures was performed. Silk sutures are non-absorbable sutures that provide excellent tensile strength and knot security. The use of simple interrupted sutures allowed for precise approximation of the wound edges and effective hemostasis. Prior to wound closure, the wound was cleaned with povidone-iodine and 0.9% NaCl. This step further reduced the risk of infection by removing any residual debris or bacteria from the wound. The application of gentamicin cream 0.1% topically provided additional antimicrobial prophylaxis. Gentamicin is an aminoglycoside antibiotic that is effective against a wide range of gram-negative bacteria. A dressing was then applied to protect the wound and promote healing. Postoperatively, the patient was prescribed cefixime 100 mg twice daily for seven days. Cefixime is a third-generation cephalosporin antibiotic that provides broad-spectrum coverage against gram-positive and gram-negative bacteria. This antibiotic prophylaxis was prescribed to prevent postoperative infection, particularly given the patient's age, diabetes, and the nature of the surgical procedure. The duration of antibiotic therapy was chosen based on standard guidelines for surgical prophylaxis. Paracetamol 500 mg three times daily for seven days was prescribed for pain management. Paracetamol, also known as acetaminophen, is a commonly used analgesic and antipyretic. It acts by inhibiting prostaglandin synthesis in the central nervous system, thereby reducing pain and fever. The three-times-daily dosing provided adequate pain relief during the initial postoperative period. The patient's follow-up was crucial in monitoring wound healing and detecting any signs of complications. At one week postoperative, the suture line was reported to be dry and free from swelling. This finding indicated that the wound was healing appropriately and that there were no signs of infection or hematoma formation. The absence of swelling suggested that the surgical procedure had not resulted in significant tissue trauma or inflammation. At ten days postoperative (POD-10), the sutures were removed. This is a standard practice for non-absorbable sutures, such as silk sutures. The wound was described as well-healed with no signs of infection. This finding confirmed the successful outcome of the surgical procedure and the effectiveness of the postoperative care. The absence of infection was particularly reassuring, given the patient's risk factors. The overall outcome of the treatment was successful, with no bleeding or thrombotic complications. This outcome highlights the importance of meticulous preoperative planning, including the careful management of antithrombotic therapy and the multidisciplinary approach involving an internist. The surgical procedure, performed with appropriate antiseptic precautions and local anesthesia, was well-tolerated by the patient. The use of electrocautery and suture closure effectively achieved hemostasis and wound approximation. The postoperative care, including antibiotic prophylaxis and pain management, contributed to the successful outcome. The follow-up visits confirmed the absence of complications and the satisfactory healing of the wound. This case underscores the importance of a comprehensive approach to the management of skin lesions in patients with underlying medical conditions (Table 2).

Table 1. Patient demographics, anamnesis, physical examination, laboratory, and diagnosis.

Category	Details
Demographics	
Age	69 years old
Gender	Male
Occupation	Retiree
Anamnesis	
Chief complaint	Horn-like protrusion above a pigmented nevus between the right eyebrow and eyelid for the past two weeks (Figure 1)
History of present illness	- Nevus present for several years with no prior changes
	- Horn-shaped growth emerged from the nevus two weeks prior, progressively increasing in size
	- No tenderness, pruritus, or burning sensation
Past medical history	- Congestive heart failure (CHF) for the past 5 years
	- Non-ST elevation myocardial infarction (NSTEMI) for the past 5 years
	- Type 2 diabetes mellitus for the past 5 years
	- Hypertension for the past 5 years
Medications	- Bisoprolol 2.5 mg once daily
	- Aspirin 80 mg once daily
	- Candesartan 8 mg daily
	- Metformin 500 mg twice daily
Physical examination	
Vital signs	- Blood pressure: 125/80 mmHg
	- Heart rate: 77 beats per minute
	- Respiratory rate: 20 breaths per minute
	- Temperature: 36.5°C
Dermatological examination	- Solitary lesion in the right supraorbital region
	- Multiple nodules arranged in a horn-like formation
	- Dark brown color
	- Verrucous surface
	- Firm and non-tender on palpation
Laboratory	
Complete blood count	Normal
Leukocyte count	Normal
Glucose levels	Normal
Coagulation	
- Initial:	--- Activated Partial Thromboplastin Time (APTT): 61.5 seconds (elevated)
	--- International Normalized Ratio (INR): 1.34 (low)
	--- Prothrombin Time (PT): 16.6 seconds (normal)
- After 3 weeks of aspirin cessation:	--- APTT: 31.7 seconds (normal)
	--- INR: 1.12 (normal)
	--- PT: 14.3 seconds (normal)
Diagnosis	
Clinical diagnosis	Nevus with cornu cutaneous

Table 2. Treatment and follow-up.

Category	Details
Preoperative management	
Antithrombotic discontinuation	- Aspirin 80 mg once daily discontinued 1 week prior to the initial scheduled procedure date
	- Further 2-week discontinuation advised after initial coagulation studies
	- Total of 3 weeks off aspirin before the procedure
Consultations	- Referral to an internist to discuss antithrombotic management and assess overall risk
Surgical procedure	
Preparation	- Surgical field prepared with 10% povidone-iodine
	- Local anesthesia administered via infiltration with 2 ml of lidocaine
Excision	- Electrocauterization excision of the nevus with cornu cutaneous
Hemostasis	- Initial hemostasis attempted with electrocautery in coagulation mode and direct pressure with gauze
	- Oozing persisted, requiring wound closure with simple suture technique using silk 1.0 sutures
Wound closure	- Wound cleaned with povidone-iodine and 0.9% NaCl before closure
	- Simple suture technique with silk 1.0 sutures
	- Gentamicin cream 0.1% applied topically
	- Dressing applied
Postoperative medications	- Cefixime 100 mg twice daily for 7 days
	- Paracetamol 500 mg three times daily for 7 days
Follow-Up	
1 week postoperative	- Suture line dry and free from swelling
10 days postoperative (POD-10)	- Sutures removed
	- Well-healed wound with no signs of infection
Outcome	Successful excision with no bleeding or thrombotic complications

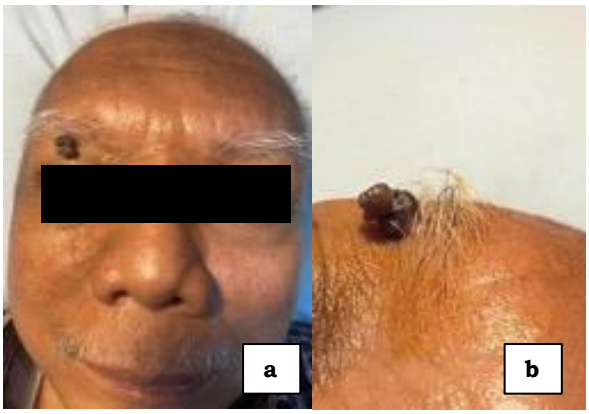


Figure 1. a and b. The horn-like lesion is in the right supraorbital region.

3. Discussion

The patient's presentation of a "lump-like protrusion" above a pigmented nevus, rapidly progressing over a short period, is of paramount clinical significance. The rapid growth of any lesion, particularly when associated with a pre-existing nevus, immediately triggers a heightened level of clinical suspicion. This is because the skin, as the body's largest organ and first line of defense, is susceptible to a wide array of pathological processes, and any deviation from the norm, especially one characterized by rapid change, demands careful scrutiny. Nevi, or melanocytic nevi, are incredibly common. They represent benign proliferations of melanocytes, the cells responsible for producing melanin, the pigment that gives skin its color. Most individuals will develop multiple nevi throughout their lives, and these lesions are generally considered to be harmless. However, it is crucial to recognize that nevi are not static entities. They can undergo various morphological changes over time, influenced by factors such as age, hormonal fluctuations, and environmental exposures, most notably ultraviolet radiation. These changes can range from subtle alterations in color or size to the development of secondary lesions or growths within or adjacent to the nevus. The development of secondary lesions associated with a nevus is a particularly important clinical consideration. These secondary changes can represent a spectrum of conditions, from entirely benign processes to premalignant or frankly malignant transformations. Benign changes might include the development of a small cyst or a seborrheic keratosis adjacent to a nevus. However, more concerning changes include alterations in the nevus that suggest dysplasia or the development of a malignant tumor, such as malignant melanoma. The clinical significance of rapid growth in a lesion associated with a nevus lies in its potential to indicate an aggressive underlying process. Rapid growth is often a hallmark of malignancy, as cancerous cells tend to proliferate at an uncontrolled rate. However, it is important to acknowledge that not all rapidly growing lesions are malignant. Benign inflammatory conditions or certain types of benign tumors can also exhibit rapid growth. Nevertheless, rapid growth in the context of a nevus warrants a thorough and timely evaluation to rule out malignancy. The development of a cornu cutaneum on a nevus is a relatively uncommon occurrence, adding a layer of complexity to the clinical picture. A cornu cutaneum, or cutaneous horn, is not a specific diagnosis but rather a descriptive term. It refers to a conical projection that rises above the skin's surface, resembling a small horn. This projection is composed of compacted keratin, the same protein that makes up our hair and nails. The appearance of a cutaneous horn is a visual manifestation of an underlying pathological process, and it is the nature of this underlying process that determines the clinical significance of the lesion. The base of a cornu cutaneum, the area where the horn arises from the skin, can be associated with a wide range of skin lesions. This is because various pathological processes can lead to an accumulation of keratin and the formation of a cutaneous horn. Benign conditions are the most common causes of cornu cutaneum. These include viral warts, which are caused by human papillomavirus (HPV) infection, seborrheic keratoses, which are common benign skin growths that tend to occur with age, and actinic keratoses, which are precancerous lesions caused by chronic sun exposure. However, it is critically important to recognize that the base of a cornu cutaneum can also be associated with premalignant or malignant skin lesions. Actinic keratoses, as mentioned earlier, are themselves precancerous and can progress to squamous cell carcinoma. Squamous cell carcinoma, a type of skin cancer that arises from the squamous cells of the epidermis, is a significant concern. Basal cell carcinoma, the most common type of skin cancer, can also be found at the base of a cutaneous horn. Although basal cell carcinoma is generally slow-growing and rarely metastasizes, it can be locally destructive if left untreated. In the most serious scenario, the base of a cornu cutaneum can be associated with malignant melanoma. Malignant

melanoma is the deadliest form of skin cancer, as it has a high propensity to metastasize, or spread to other parts of the body. The possibility of malignant melanoma underlying a cornu cutaneum is a critical consideration, particularly when the cornu cutaneum is associated with a pre-existing nevus. In this particular case, the rapid progression of the "lump-like protrusion" above the patient's nevus is a key factor that raises concerns about a potentially aggressive process. The rapid growth suggests that the underlying pathological process is actively proliferating, and this warrants a high degree of clinical suspicion for malignancy. The possibility of malignant transformation within the nevus, leading to the development of a cornu cutaneum, is a significant diagnostic consideration. Malignant melanoma, as previously mentioned, is a serious form of skin cancer that can arise from pre-existing nevi. While the overall risk of malignant transformation in a nevus is relatively low, it is not negligible. Certain clinical features and risk factors can increase the likelihood of malignant transformation. These risk factors include a large number of nevi, as individuals with a higher number of nevi have a greater overall risk of developing melanoma. A history of atypical nevi, which are nevi with unusual features that are sometimes difficult to distinguish from melanoma, is another risk factor. A family history of melanoma increases an individual's genetic predisposition to the disease. Excessive sun exposure, particularly a history of severe sunburns, is a major risk factor for melanoma development. In addition to these established risk factors, any changes in the size, shape, color, or texture of a nevus should raise clinical suspicion for malignant transformation. These changes can be subtle or dramatic, and they may occur over a period of weeks, months, or even years. Changes in size, such as an increase in the diameter of the nevus, are a common sign of melanoma. Changes in shape, such as the development of irregular or poorly defined borders, are also concerning. Changes in color, such as the development of new colors within the nevus or a darkening or lightening of the nevus, can be indicative of melanoma. Changes in texture, such as the development of a rough or scaly surface, or the development of bleeding, itching, or ulceration within the nevus, are also important warning signs. In the context of a nevus with a cornu cutaneum, the presence of rapid growth, as observed in this case, is a particularly concerning feature. Rapid growth suggests that the underlying pathological process is actively proliferating and may be indicative of malignancy. Irregular borders or changes in pigmentation within the nevus, if visible despite the presence of the cornu cutaneum, would further increase the level of suspicion for melanoma. The location of the lesion in the periorbital region also adds to the clinical significance of this case. The periorbital region, the area surrounding the eye, is an anatomically complex region. It contains vital structures, including the eye itself, the eyelids, the lacrimal system, and the muscles that control eye movement. Lesions in this area can potentially affect visual function or cause cosmetic disfigurement. The proximity of the lesion to the eye makes accurate diagnosis and careful management even more critical. Lesions in the periorbital region can present diagnostic and therapeutic challenges. The delicate nature of the tissues in this area requires meticulous surgical technique to minimize the risk of complications. The potential for scarring or other cosmetic changes is also a significant consideration. Furthermore, lesions in this region can sometimes mimic other conditions, making accurate diagnosis more difficult. In the case of a nevus with a cornu cutaneum in the periorbital region, the potential for complications related to the eye is a major concern. If the underlying lesion is malignant, such as malignant melanoma, there is a risk of the tumor invading or spreading to the eye or surrounding structures. This could lead to vision loss or other serious complications. Therefore, careful evaluation and management are essential to minimize the risk of such complications. The absence of tenderness, guarding, or burning sensation reported by the patient does not exclude an underlying inflammatory or neoplastic

process. While these symptoms are often associated with inflammation, their absence does not rule out such etiologies. Pain is a subjective experience, and its absence does not necessarily indicate the absence of pathology. Some inflammatory processes may be in their early stages and not yet elicit significant pain. Additionally, certain types of tumors, including some melanomas, may not be associated with pain, particularly in their early stages. Furthermore, it is important to consider that some patients, particularly elderly individuals, may have a reduced pain perception due to age-related changes in the nervous system or other factors. Therefore, the absence of pain should not be used as the sole criterion for ruling out an underlying pathological process. Guarding, which refers to the tensing of muscles to protect an area of the body from pain, is another sign of inflammation or injury. However, its absence does not exclude these possibilities. Similarly, the absence of a burning sensation does not rule out certain dermatological conditions that may not be associated with this symptom.[11-15]

This case emphatically highlights the critical importance of meticulous comorbidity management in patients undergoing dermatological procedures. The patient presented in this case carried a significant burden of medical history, a constellation of chronic conditions that significantly influenced the assessment, treatment planning, and overall management of the cutaneous lesion. These comorbidities included congestive heart failure, non-ST elevation myocardial infarction, type 2 diabetes mellitus, and hypertension. Each of these conditions, individually and in their interconnectedness, presented distinct challenges and considerations that had to be carefully navigated to ensure patient safety and optimal outcomes. Congestive heart failure (CHF), a chronic and progressive condition, represents a state in which the heart muscle is unable to pump sufficient blood to meet the body's metabolic demands. This inadequacy can stem from various underlying causes, including coronary artery disease, hypertension, valvular heart disease, or cardiomyopathy. The consequences of CHF are far-reaching, affecting multiple organ systems and leading to a range of symptoms such as shortness of breath, fatigue, and fluid retention. The latter, fluid retention, is a hallmark of CHF and often manifests as edema, or swelling, in the extremities, lungs (pulmonary edema), and other tissues. In the context of this case, while the localized nature and rapid progression of the periorbital swelling made it less likely that CHF was the primary etiological factor, it was nonetheless imperative to consider this possibility. The presence of CHF indicates an underlying cardiovascular compromise, a vulnerability that must be factored into any medical or surgical intervention. Patients with CHF may have altered hemodynamics, reduced organ perfusion, and impaired ability to tolerate stress, including the stress of a surgical procedure. Furthermore, medications used to manage CHF, such as diuretics, can affect fluid and electrolyte balance, which can have implications for wound healing and overall recovery. Therefore, it is essential to have a comprehensive understanding of the patient's CHF status, including the severity of the condition, the effectiveness of current medications, and the presence of any associated complications. This understanding informs the decision-making process regarding the timing and type of dermatological procedure, the choice of anesthesia, and the need for any specific monitoring or precautions. The patient's history of non-ST elevation myocardial infarction (NSTEMI) is another critical aspect of their medical history that demands careful attention. An NSTEMI is a type of heart attack caused by a partial or temporary blockage of a coronary artery, leading to damage to the heart muscle. This history signifies the presence of underlying coronary artery disease, a condition characterized by the buildup of plaque in the arteries that supply blood to the heart. Coronary artery disease is a major risk factor for future cardiovascular events, including further heart attacks, stroke, and heart failure. Patients with coronary artery disease are often prescribed antithrombotic medications, such as aspirin or other antiplatelet agents, to prevent the

formation of blood clots that could lead to these events. These medications play a crucial role in reducing cardiovascular risk. However, they also pose a significant challenge in the context of surgical procedures. Antithrombotic medications, by their very mechanism of action, interfere with the body's natural clotting mechanisms, thereby increasing the risk of bleeding during and after surgery. This creates a delicate balancing act for clinicians. The need to prevent thromboembolic events must be weighed against the risk of perioperative bleeding. Discontinuing antithrombotic medications before a procedure can significantly reduce the risk of bleeding, but it also increases the risk of a potentially life-threatening cardiovascular event. Therefore, the decision to discontinue or continue these medications must be individualized, based on a careful assessment of the patient's cardiovascular risk, the risk of bleeding associated with the specific procedure, and a collaborative discussion with the patient and, ideally, a cardiologist or internist. Type 2 diabetes mellitus, a chronic metabolic disorder, is another comorbidity that significantly influences the management of dermatological conditions. Type 2 diabetes is characterized by insulin resistance, a condition in which the body's cells do not respond effectively to insulin, a hormone that regulates blood sugar levels. This leads to elevated blood sugar levels, which, over time, can cause damage to various organs and tissues. Type 2 diabetes can lead to a wide range of complications, including microvascular complications, such as retinopathy (damage to the eyes), nephropathy (damage to the kidneys), and neuropathy (nerve damage), and macrovascular complications, such as coronary artery disease, peripheral artery disease, and stroke. In addition to these cardiovascular and neurological complications, type 2 diabetes has significant implications for wound healing and infection risk. Diabetic patients are at increased risk of infections due to several factors. Elevated blood sugar levels can impair the function of immune cells, making them less effective at fighting off infections. Diabetic neuropathy can also lead to decreased sensation, particularly in the extremities, which can make it more difficult for patients to detect injuries or infections. Furthermore, diabetes can impair blood flow, which can delay wound healing and increase the risk of infection. Impaired wound healing is a major concern in diabetic patients undergoing surgical procedures. Elevated blood sugar levels can interfere with the complex processes involved in wound repair, including collagen synthesis and angiogenesis (the formation of new blood vessels). This can lead to delayed healing, increased risk of wound dehiscence, and a higher likelihood of developing chronic wounds. Therefore, meticulous blood sugar control is essential in diabetic patients undergoing dermatological procedures. This may involve optimizing the patient's current diabetes medications, adjusting insulin dosages, or even initiating insulin therapy in patients who are not already on it. Close monitoring of blood sugar levels before, during, and after the procedure is crucial to ensure that levels are within a safe and optimal range for wound healing. Hypertension, or high blood pressure, is another prevalent comorbidity that plays a significant role in the overall health and management of patients undergoing dermatological procedures. Hypertension is a major risk factor for cardiovascular disease, including coronary artery disease, stroke, heart failure, and kidney disease. It is often a silent condition, meaning that it may not cause any noticeable symptoms for many years. However, over time, uncontrolled hypertension can cause significant damage to the body's arteries and organs. Hypertension can contribute to and exacerbate other comorbidities, such as congestive heart failure. The increased workload placed on the heart by high blood pressure can eventually lead to heart muscle weakening and the development of heart failure. Uncontrolled hypertension can also increase the risk of perioperative complications, such as bleeding, stroke, and heart attack. Elevated blood pressure can increase the risk of bleeding during surgery, particularly in procedures involving highly vascular tissues. Therefore, optimal blood pressure control is

essential in patients undergoing dermatological procedures. This may involve adjusting or optimizing antihypertensive medications before the procedure, monitoring blood pressure closely during the procedure, and ensuring that blood pressure remains within a safe range during the postoperative period. The management of patients with multiple comorbidities requires a multidisciplinary approach involving collaboration between dermatologists, internists, and other specialists. Effective communication and coordination among the healthcare team are essential to ensure that all aspects of the patient's health are adequately addressed. A thorough assessment of the patient's medical history, current medications, and risk factors for complications is crucial for developing an individualized treatment plan. This assessment should include a review of the patient's past medical records, a detailed physical examination, and appropriate laboratory and imaging studies. The development of a comprehensive treatment plan should involve a careful consideration of the risks and benefits of each intervention. The plan should also address the patient's specific needs and preferences. Regular communication with the patient and their family is essential to ensure that they are informed and involved in the decision-making process.[16-20]

4. Conclusion

This case report illustrates the complexities of managing a geriatric patient on antithrombotic therapy undergoing a dermatologic surgical procedure. The decision to discontinue aspirin, a crucial aspect of preoperative management, was carefully weighed against the patient's history of cardiovascular disease and the potential risk of thrombotic events. The initial finding of elevated coagulation parameters added another layer of complexity, necessitating a delay in the procedure and further investigation. The successful outcome in this case highlights several key principles in the management of such patients. Firstly, a multidisciplinary approach involving collaboration between the dermatologist and an internist was crucial. This collaboration allowed for a comprehensive assessment of the patient's overall risk and optimization of their medical condition before the surgical procedure. Secondly, individualized risk assessment and optimization strategies are essential. The decision to discontinue aspirin and the duration of discontinuation were tailored to the patient's specific circumstances, taking into account their cardiovascular risk and the risk of bleeding associated with the procedure. This case also underscores the importance of meticulous surgical technique and postoperative care. The use of electrocautery, appropriate hemostatic measures, and careful wound closure contributed to the successful outcome. Postoperative antibiotic prophylaxis and pain management further ensured a smooth recovery. In conclusion, this case highlights the importance of a comprehensive and individualized approach to the management of geriatric patients on antithrombotic therapy undergoing dermatologic procedures.

5. References

1. Woods AD, Liu W, Krunic AL. Eccrine malignancies in nevus sebaceus: Case presentation and review of the literature. JAAD Case Rep. 2025; 57: 59–63.
2. Srinivasa S, Joseph S, Harshad SR. An unusual complication of nevus sebaceous debugged! Indian Dermatol Online J. 2025; 16(2): 311–2.
3. Mallaradhya SH, Satish S, Shivamurthy A, Ravishankar N. Cervical blue nevus: case series with review of literature. Indian J Gynecol Oncol. 2025; 23(1).
4. Zhang Y, Wu J, Cai X, Jiang K, Zhang W, Zhou H, et al. Nevus-associated acral melanoma has lower risk of recurrence and mortality than de novo acral melanoma: a multicenter, retrospective analysis of 482 patients. J Am Acad Dermatol. 2025; 92(3): 538–45.
5. Class MM, Kissinger CR, Ibad S, Trautz A, Zhai L, Hafeez F. Determining the relationship

between cutaneous keratocysts and basal cell nevus syndrome. J Cutan Pathol. 2025.
6. Cui W, Wan M, Miao Y, Chen L, Shao L. Treatment of spider nevus-induced vitiligo using pulsed dye laser in a child. Lasers Med Sci. 2025; 40(1): 124.
7. Filippova OV, Chesanov DV, Roshchina NV, Proshchenko YN, Provorova EN. Invasive melanocytic nevus: a case report. Plas Surg Aest Med. 2025; (1): 135.
8. Case Medical Research. Antithrombotics and complications in skin grafts. Case Med Res. 2020.
9. Kött J, Zell T, Zimmermann N, Rünger A, Smit DJ, Abeck F, et al. Improved survival of advanced melanoma patients receiving immunotherapy with concomitant antithrombotic therapy - A multicenter study on 2419 patients from the prospective skin cancer registry ADOReg. Eur J Cancer. 2025; 214(115159): 115159.
10. Khiari Z, Rico D, Martin-Diana AB, Barry-Ryan C. Structure elucidation of ACE-inhibitory and antithrombotic peptides isolated from mackerel skin gelatine hydrolysates. J Sci Food Agric. 2014; 94(8): 1663–71.
11. Fichter AM, Ritschl LM, Robitzky LK, Wagenpfeil S, Mitchell DA, Wolff K-D, et al. Impact of different antithrombotics on the microcirculation and viability of perforator-based ischaemic skin flaps in a small animal model. Sci Rep. 2016; 6: 35833.
12. Scherer FD, Nast A, Gaskins M, Werner RN, Dressler C. Perioperative management of antithrombotic drugs in skin surgery - A survey of dermatologists in Germany. J Dtsch Dermatol Ges. 2022; 20(7): 941–50.
13. Wernham AGH, Bray APJJ. British Society for Dermatological Surgery guidance on antithrombotics and skin surgery 2023. Clin Exp Dermatol. 2023; 49(1): 87–8.
14. Butt E, Hunt W, Defty C, Hussain W, Bray A, Wernham A. A national clinician survey on the British Society for Dermatological Surgery guidelines on antithrombotic agent use in skin surgery. Clin Exp Dermatol. 2024; 49(2): 143–5.
15. Callahan S, Goldsberry A, Kim G, Yoo S. The management of antithrombotic medication in skin surgery. Dermatol Surg. 2012; 38(9): 1417–26.
16. Aphivantrakul PP, Mina MA, Dale Sarradet M, Wells R. Judicious discontinuation of antithrombotic medications in skin surgery. Dermatol Surg. 2013; 39(3 Pt 1): 490–1.
17. Shukuwa T, Ishikawa H. The management of antithrombotic medications, prothrombin time-international normalized ratio, and bleeding complications in patients taking antithrombotic agents during dermatological surgery. Skin Cancer. 2015; 30(3): 179–84.
18. Jarjis RD, Jørgensen L, Finnerup K, Birk-Sørensen L. Complications in skin grafts when continuing antithrombotic therapy prior to cutaneous surgery requiring skin grafting: a systematic review. J Plast Surg Hand Surg. 2015; 49(3): 129–34.
19. Hasselgren M, Runer T, Janson P, Ekström M. Antithrombotic treatment and risk of complications after head and neck full thickness skin graft surgery. J Plast Surg Hand Surg. 2018; 52(6): 333–7.
20. Jørgensen L, Matzen RD, Albertsdottir E, Birk-Sørensen L. Complications in skin grafts when continuing antithrombotic therapy prior to cutaneous surgery requiring skin grafting: an observational study. J Plast Surg Hand Surg. 2020; 54(6): 352–7.