



INTEGRATED APPROACH TO CLINICAL MANAGEMENT OF SEBACEOUS CYSTS: A Case Study on Enucleation and Ayurvedic Principles

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ABSTRACT

Sebaceous cysts, arising from obstructed sebaceous glands, are benign growths commonly found on the skin's surface. This study explores the clinical management of sebaceous cysts through enucleation, a surgical procedure aimed at complete removal of the cyst and its lining. The case study presents a 22-year-old male patient with a sebaceous cyst on his face, detailing the surgical procedure, post-operative care, and follow-up. Discussion involves the efficacy of enucleation, differential diagnoses, and the importance of proper clinical diagnosis. The conclusion emphasizes the significance of considering sebaceous cysts in clinical diagnosis and the necessity of surgical enucleation for definitive treatment.

KEYWORDS: Sebaceous cyst, Epidermoid cyst, Keratin cyst, Ayurvedic management, Enucleation, Surgical excision

INTRODUCTION

Sebaceous cysts, also known as epidermoid or keratin cysts, are common benign skin growths arising from sebaceous glands in the skin. These glands are responsible for producing sebum, an oily substance that lubricates the skin and hair, preventing them from becoming dry and brittle. The sebaceous glands are found throughout the body, except on the palms of the hands and the soles of the feet. When the duct of a sebaceous gland becomes blocked or damaged, sebum accumulates within the gland, leading to the formation of a cyst.

Sebaceous cysts typically present as smooth, round, and mobile masses beneath the skin, varying in size from a few millimeters to several centimeters in diameter. They are often painless but can cause discomfort or tenderness if they become inflamed or infected. These cysts are commonly found on the scalp, face, neck, and torso, although they can occur anywhere on the body where sebaceous glands are present. They are characterized by their characteristic yellowish or whitish appearance due to the accumulation of sebum and keratinous material within the cyst.

In Ayurveda, sebaceous cysts are understood as manifestations of an imbalance in the Kapha dosha, particularly affecting the mamsa (muscle tissue) and meda (fat tissue). According to Ayurvedic principles, when the Kapha dosha becomes aggravated, it can lead to the formation of granthi (tumors or cysts) in various tissues of the body. Sebaceous cysts, therefore, can be viewed as a localized manifestation of systemic imbalance, requiring holistic management to address the underlying doshic disturbances.

The clinical management of sebaceous cysts typically involves surgical intervention, with complete excision of the cyst and its wall to prevent recurrence. However, conservative approaches such as intralesional steroid injections or incision and drainage may be considered in certain cases, particularly if the cyst is inflamed or infected. Ancillary investigations such as fine-needle aspiration cytology (FNAC), computed tomography (CT), or magnetic resonance imaging (MRI) may be utilized to confirm the diagnosis and guide treatment decisions.

In this case study, we present the clinical management of a sebaceous cyst through enucleation, highlighting the diagnostic approach, surgical technique, and postoperative care. Through detailed examination and management, we aim to provide insights into the effective management of sebaceous cysts and the importance of a multidisciplinary approach involving Ayurvedic principles and modern surgical techniques.



Case Report

A 22-year-old male student from Duttatota, Puri, Odisha presented to the Outpatient Department of Shalya Tantra, Gopabandhu Ayurveda Mahavidyalaya (GAM), Puri, with complaints of itching, swelling, and pricking pain on the left side of his face. Upon examination, a cyst with a diameter of 1-2 cm was observed at the site. The patient reported experiencing pain and discomfort, but there was no history of previous cysts or relevant medical conditions.

Given the clinical presentation consistent with a benign tumour, the decision was made to perform an enucleation procedure on an outpatient basis. Local anesthesia was administered at the base of the cyst, and hemostasis was ensured throughout the procedure. Under anesthesia, the cyst was excised, and the patient was discharged promptly following the procedure. Non-steroidal anti-inflammatory drugs (NSAIDs) were prescribed for pain management, along with Jatyadi ghritha for wound healing.

At the follow-up appointment on the third day post-procedure, the wound showed no signs of infection, pus, or swelling. The patient reported minimal pain and bleeding, and wound care instructions, including the application of Betadine and Jatyadi ghritha, were reiterated. Daily dressing changes were advised, and on the 30th day of follow-up, complete wound healing was observed.



DISCUSSION

Sebaceous cysts pose both diagnostic and therapeutic challenges to healthcare providers due to their diverse clinical presentations and potential complications. While traditional Ayurvedic principles offer valuable insights into the underlying pathophysiology of these cysts, modern approaches emphasize evidence-based diagnostic techniques and surgical interventions to achieve optimal patient outcomes.

In the context of modern medicine, the most effective approach to managing sebaceous cysts involves a combination of accurate diagnosis, appropriate surgical intervention, and meticulous postoperative care. Fine-needle aspiration cytology (FNAC) and imaging modalities such as computed tomography (CT) or magnetic resonance imaging (MRI) play crucial roles in confirming the diagnosis and evaluating the extent of cystic lesions. These diagnostic tools provide valuable information regarding cystic contents, wall thickness, and proximity to surrounding structures, guiding treatment decisions and surgical planning.

Surgical excision remains the cornerstone of treatment for sebaceous cysts, with enucleation being the preferred technique to ensure complete removal of the cyst and its capsule. Enucleation involves careful dissection of the cyst wall from surrounding tissues, minimizing the risk of recurrence and preserving cosmetic outcomes. In cases where the cyst is inflamed or infected, incision and drainage may be performed initially to alleviate symptoms before definitive surgical excision.

Advancements in minimally invasive techniques, such as endoscopic or laparoscopic approaches, offer additional benefits in select cases, including reduced surgical morbidity, shorter recovery times, and improved cosmesis. These techniques allow for precise visualization and manipulation of cystic lesions, facilitating complete excision while minimizing tissue trauma and scarring. Moreover, adjunctive measures such as intralesional steroid injections or laser ablation may be employed to reduce cyst size and inflammation, particularly in recurrent or refractory cases.



Postoperative care plays a crucial role in optimizing outcomes following surgical intervention for sebaceous cysts. Patients should be educated about wound care practices, including regular cleansing, application of topical antibiotics, and avoidance of trauma or manipulation to the surgical site. Close follow-up with healthcare providers is essential to monitor for signs of infection, recurrence, or other complications, ensuring timely intervention and optimal healing.

In summary, the clinical management of sebaceous cysts requires a comprehensive and multidisciplinary approach, integrating traditional Ayurvedic principles with modern diagnostic techniques and surgical interventions. By combining the strengths of both systems, healthcare providers can deliver personalized and effective care to patients with sebaceous cysts, achieving favorable outcomes and improving quality of life.

CONCLUSION

Sebaceous cysts, though benign, can cause diagnostic challenges, especially when large. Surgical enucleation remains the cornerstone of treatment, offering complete removal and preventing recurrence. Clinicians should consider sebaceous cysts in differential diagnoses of skin swellings, emphasizing the importance of accurate diagnosis and appropriate imaging techniques. Surgical intervention, coupled with proper post-operative care, ensures optimal outcomes for patients with sebaceous cysts.

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