

## Scalp Spinal Cell Carcinoma Managed with Resection and Ying Yang Flap

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### ABSTRACT

The second most frequent type of non-melanoma skin cancer is cutaneous squamous cell carcinoma (cSCC). We present the case of a squamous cell carcinoma of the scalp with surgical management and the importance of the Ying-yang flap. Ying-Yang flaps" are employed when there is stress on the incision, especially on the scalp and lower extremities.

**KEYWORDS:** Scalp, surgery, ying-yang flap, case report

### ARTICLE DETAILS

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**Introduction:** Cutaneous squamous cell carcinoma (cSCC) ranks as the second most common form of non-melanoma skin cancer. Its occurrence is often linked to factors such as UV exposure, advanced age, fair skin (Fitzpatrick skin types I-III), and immunosuppression. While many cases of cSCC can be effectively treated locally with minimal long-term consequences, a small percentage of individuals succumb to the disease. In this context, we present a case highlighting the surgical management of squamous cell carcinoma situated on the scalp and underscore the significance of employing the Ying-yang flap technique<sup>1</sup>.

This case underscores the critical importance of early detection and appropriate management strategies in addressing cSCC, particularly in high-risk areas like the scalp. By elucidating the clinical course and surgical intervention utilized in this particular case, we aim to shed light on effective approaches for treating and mitigating the impact of cSCC. Additionally, we underscore the value of

innovative techniques such as the Ying-yang flap in achieving optimal outcomes for patients undergoing reconstructive procedures following tumor resection. Through this case presentation, we endeavor to contribute to the collective understanding of cSCC management, emphasizing the importance of tailored interventions to ensure favorable patient outcomes<sup>1</sup>.

**Case History:** 70-year-old male. With arterial hypertension with 10 years of evolution in treatment with Losartan. Smoking of 40 years of evolution at a rate of half a pack a day. Appendectomy at 28 years old. His condition began two years ago with the presence of 2 lesions at the level of the scalp, asymptomatic, slow progressive growth (figure 1), without giving importance until 18 months later, he attended primary medical care, was sent to dermatology, a biopsy was taken, reporting squamous cell carcinoma, Subsequently, plastic, and reconstructive surgery was sent for resection in conjunction with onco-surgery. A wide resection is

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performed, reporting negative borders to malignancy intraoperative, later managed with reconstruction with a ying-

yang type flap (figure 2). Currently 6 months after surgery, with favorable evolution and free of disease.



**Figure 1. Preoperative Ying Yang flap marking**



**Figure 2. Ying Yang flap**

### DISCUSSION

The management of cutaneous squamous cell carcinoma (cSCC) necessitates a meticulous approach, with emphasis placed on achieving complete tumor resection while preserving tissue function and aesthetics. Resectable tumors with clear margins and maintained functionality represent the primary candidates for curative surgery in cSCC cases. This approach is paramount for ensuring optimal outcomes and minimizing the risk of disease recurrence<sup>2,3</sup>.

The scalp presents a unique challenge in cSCC management due to its status as a "high-risk area" for tumor spread, akin to the lip and ear. Consequently, surgical procedures in these regions must prioritize the attainment of lesion-free margins during resection to prevent disease dissemination and recurrence. In cases where tension on the incision site poses a concern, as often observed in scalp and lower extremity

surgeries, innovative techniques like the Ying-Yang flap offer a valuable solution<sup>3</sup>.

Ying-Yang flaps, characterized by their double opposing rotation advancement, are particularly beneficial in addressing tension-related issues in surgical wounds. By redistributing tension across multiple vectors, these flaps help to minimize wound complications and optimize healing outcomes, especially in challenging anatomical locations like the scalp. However, the selection of the "optimal flap" remains a subject of ongoing debate among surgeons, highlighting the need for individualized treatment approaches tailored to each patient's unique anatomical and clinical characteristics<sup>4</sup>.

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### CONCLUSION

Conclusion: The case presented underscores the complexities involved in managing cutaneous squamous cell carcinoma (cSCC), particularly when located on high-risk areas such as the scalp. Through meticulous surgical intervention, including the utilization of innovative techniques like the Ying-Yang flap, favorable outcomes can be achieved, with an emphasis on complete tumor resection and preservation of tissue function and aesthetics.

Moving forward, continued research and collaboration within the medical community are essential to further refine treatment strategies for cSCC. By leveraging advancements in surgical techniques and therapeutic modalities, clinicians can enhance patient outcomes and minimize the morbidity associated with this prevalent form of skin cancer.

Furthermore, patient education and awareness initiatives play a crucial role in promoting early detection and intervention, ultimately improving prognosis and reducing the burden of cSCC on individuals and healthcare systems alike.

In conclusion, the presented case serves as a testament to the importance of interdisciplinary collaboration, innovation, and personalized care in the management of cSCC. By adhering to evidence-based practices and prioritizing patient-centered approaches, clinicians can strive towards better outcomes and enhanced quality of life for individuals affected by this disease..

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