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Effective use of the Orticochea Flap in the Surgical Treatment of Non-Hodgkin Lymphoma : Case Report

Anastasia Dessy Harsono[1], Metaudina Chandra Pratiwi[1], Dominic Melino Tjokrovonco[1]
[1] Department of Plastic Surgery, Gatot Soebroto Army Central Hospital, Jakarta, Indonesia

Email: anastasia.bedahplastik@gmail.com

Abstract

Background: Head and neck non-Hodgkin lymphoma may clinically and radiologically mimic inflammatory disease, sarcoma, or other malignant tumors, creating diagnostic and reconstructive challenges. Large occipital scalp defects require vascularized, hair-bearing tissue coverage. This case series aims to describe the role of the Orticochea flap for reconstruction of large occipital scalp defects after tumor excision, with emphasis on diagnostic uncertainty, operative management, and postoperative wound outcome.
Case illustration: The complete available case involved a 55-year-old immunocompetent woman with a rapidly enlarging painless mass extending from the posterior neck to the occipital scalp over four months, accompanied by an axillary lump. Magnetic resonance imaging suggested a soft tissue malignancy, initially considered liposarcoma. Wide excision with a 5-mm margin produced a 20 x 20 cm scalp defect, reconstructed using an Orticochea flap. Histopathology suggested non-Hodgkin lymphoma, although the final immunohistochemical subtype requires completion by the authors. Additional cases should be inserted before final submission.
Discussion: The Orticochea flap provides broad local scalp advancement while preserving vascularity and hair-bearing coverage. In the available case, early wound healing was satisfactory, but delayed occipital wound dehiscence occurred and was managed conservatively with daily pure honey dressing during chemotherapy.
Conclusion: The Orticochea flap may be useful for large occipital scalp defects requiring local hair-bearing coverage, but complete oncologic diagnosis, additional cases, and longer follow-up are needed before final case-series submission.

Keywords: *head and neck tumor, non-Hodgkin lymphoma, Orticochea flap, reconstructive surgery, scalp reconstruction*

Background

Non-Hodgkin lymphoma (NHL) is a malignant lymphoid neoplasm with heterogeneous clinical and histopathological presentations. In the head and neck region, NHL may present as a painless enlarging mass and can mimic inflammatory lesions, abscesses, sarcoma, poorly differentiated carcinoma, or other malignant tumors. This overlap can delay accurate diagnosis and may require histopathological confirmation supported by immunohistochemistry before definitive oncologic therapy is planned.[1–6]

Large occipital scalp defects after tumor excision are difficult to reconstruct because the scalp is relatively inelastic, thick, and functionally important as a hair-bearing aesthetic unit. The Orticochea flap, also known as a banana-peel flap, is a local scalp flap technique that recruits adjacent vascularized hair-bearing scalp for coverage of medium to large defects. This case series aims to describe the clinical use of the Orticochea flap for large occipital scalp reconstruction following excision of tumors suspected or confirmed to be associated with NHL. The present manuscript currently contains one complete case; additional cases must be added to fulfill the case series format.[13–16]

Case Illustration

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A 55-year-old immunocompetent woman presented with a rapidly enlarging, bulky, painless mass extending from the posterior neck to the occipital scalp over four months. She also reported the development of another painless lump in the axillary region a few months after the neck mass appeared. Additional medical history, family history, medication use, and prior treatment history were not available in the submitted manuscript and should be completed by the authors.

Physical examination revealed a palpable, mobile, painless mass measuring approximately 6 x 7 x 5 cm, extending from the neck to the occipital scalp. A single enlarged lymph node was palpable in the left axillary region. Laboratory examination showed anemia with hemoglobin of 9.1 g/dL, while leukocyte count was within normal limits. Complete laboratory results should be added if available.

Magnetic resonance imaging demonstrated multiple poorly defined subcutaneous soft tissue masses extending from the left occipital region to the left posterior colli, measuring 6.6 x 7.3 x 5.3 cm. The masses involved the left semispinalis capitis muscle and contained a necrotic component. A lesion between the major posterior rectus capitis muscle and the left semispinalis muscle measured 1.9 x 1.1 x 2.2 cm. Based on clinical and imaging findings, the initial working diagnosis was liposarcoma.[7–10]

Wide excision with a 5-mm safety margin was performed after the patient received blood transfusion and was deemed fit for surgery. The procedure produced a large occipital scalp defect measuring approximately 20 x 20 cm. Reconstruction was performed using an Orticochea flap. The excised mass was submitted for histopathological examination.

Figure 1. Preoperative flap design for reconstruction of a large occipital scalp defect using the Orticochea flap technique. The images show the posterior scalp and occipital region with planned flap markings before tumor excision and reconstruction.

Figure 2. Intraoperative appearance during wide excision and Orticochea flap reconstruction of the occipital scalp defect. The flap was designed to provide broad coverage while preserving local vascularity.

Figure 3. Postoperative appearance after Orticochea flap reconstruction. The wound initially appeared intact; however, subsequent occipital wound dehiscence was reported after suture removal in the submitted case description.

On postoperative day seven, wound inspection revealed an intact wound without signs of infection, and the drain was removed because of minimal output. Sutures were removed two weeks later. One week after suture removal, the patient developed wound dehiscence in the occipital region, leaving a 6 x 8 cm raw surface with exposed periosteum as the wound base.

Histopathological examination demonstrated a malignant neoplasm of the occipital region, suggestive of NHL, with poorly differentiated carcinoma included as a differential diagnosis. The cranial, medial, caudal, and lateral margins were free of tumor, whereas the deep base margin still contained malignant cells. Immunohistochemistry results and final lymphoma subtype were not provided in the submitted manuscript and should be completed by the authors.[11,12]

The raw surface was treated using pure honey dressing, which was changed daily, while the patient continued chemotherapy. No new tumor growth was reported during follow-up. The chemotherapy regimen, duration of follow-up, staging, and objective oncologic

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response assessment were not specified in the submitted manuscript and should be completed by the authors.

Table 1. Summary of clinical characteristics, operative management, and postoperative outcome in the available case.

Clinical variable	Case 1 finding
Age/sex	55-year-old woman
Presentation	Rapidly enlarging painless posterior neck and occipital scalp mass for four months with painless axillary lump
Imaging	Multiple poorly defined left occipital and posterior cervical subcutaneous soft tissue masses; initial impression suggested liposarcoma
Surgery	Wide excision with 5-mm margin
Defect size	Approximately 20 x 20 cm
Reconstruction	Orticochea flap
Histopathology	Malignant neoplasm suggestive of non-Hodgkin lymphoma; immunohistochemistry and subtype need completion
Margin status	Cranial, medial, caudal, and lateral margins tumor-free; deep base margin contained malignant cells
Postoperative event	Delayed occipital wound dehiscence with 6 x 8 cm raw surface and exposed periosteum
Wound management	Daily pure honey dressing during chemotherapy
Follow-up	No new tumor growth reported; duration and objective response assessment need completion

Discussion

This manuscript demonstrates the reconstructive value of the Orticochea flap in a large occipital scalp defect after excision of a mass that was ultimately suggestive of NHL. The available case also highlights the diagnostic difficulty of head and neck NHL, because the clinical and radiological findings initially suggested a soft tissue malignancy such as liposarcoma. Similar diagnostic confusion has been described in the literature, particularly in extranodal lymphoma that mimics sarcoma or inflammatory disease.[3,7–10]

Histopathological assessment is mandatory in suspected lymphoma, and immunohistochemistry is essential for confirming cell lineage, defining subtype, and guiding systemic therapy. In the available case, histopathology suggested NHL but poorly differentiated carcinoma remained a differential diagnosis. Therefore, immunohistochemical results, lymphoma subtype, disease staging, and chemotherapy regimen should be added before final submission to improve diagnostic certainty and clinical relevance.[11,12]

Scalp reconstruction requires attention to defect size, location, oncologic margin status, tissue vascularity, tissue laxity, hair-bearing aesthetic units, and patient comorbidities. The Orticochea flap allows broad recruitment of adjacent hair-bearing scalp and can provide local tissue coverage while preserving vascularity. This makes it useful for medium to large scalp defects when primary closure is not feasible and when skin grafting may be suboptimal, particularly over exposed periosteum or poorly vascularized tissue.[13–16]

The postoperative wound dehiscence in the available case may have been influenced by the large defect size, tissue tension, scalp inelasticity, anemia, oncologic disease status, and systemic therapy. Conservative management with daily pure honey dressing was used while chemotherapy continued. However, because the current manuscript contains only one complete case, additional cases are required for a true case series. The comparative discussion should be expanded after the authors add cases 2 and 3,

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focusing on similarities and differences in defect size, flap design, complications, and oncologic outcomes.

Conclusion

Head and neck NHL may present as a large soft tissue mass that mimics sarcoma, making early diagnosis challenging. Histopathological confirmation, supported by immunohistochemistry, is essential. The Orticochea flap may provide useful hair-bearing local tissue coverage for large occipital scalp defects after tumor excision. Additional cases, complete oncologic data, and longer follow-up are required before this manuscript can be considered a complete case series.

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Author Contributions

All authors act as the guarantor of the manuscript. A.D.H. contributed to conceptualization, patient management, data acquisition, clinical interpretation, and manuscript drafting. M.C.P. contributed to patient management, data collection, literature review, and manuscript revision. D.M.T. contributed to data interpretation, figure preparation, literature review, and critical revision of the manuscript. All authors have read and approved the final manuscript and agree to be accountable for all aspects of the work.

Conflict of Interests

No conflict of interest.

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