

Efficacy of Surgical Excision for Nevus Sebaceous - Vietnamese Experience

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Abstract

Citation: Van TN, Thanh HL, Manh TN, Thi Minh PP, Cao KP, Hong SN, Huu ND, Cam VT, Huyen ML, Hau KT, Gandolfi M, Satolli F, Feliciani C, Tirant M, Vojvodic A, Lotti T. Successful Treatment of Facial Atrophic Acne Scars by Fractional Radiofrequency Microneedle in Vietnamese Patients. Open Access Maced J Med Sci. 2019 Jan 30; 7(2):211-213. <https://doi.org/10.3889/oamjms.2019.001>

Keywords: Nevus sebaceous; Sebaceous; Nevus; Epidermal nevus

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Received: 02-Jan-2019; **Revised:** 10-Jan-2019; **Accepted:** 12-Jan-2019; **Online first:** 24-Jan-2019

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Funding: This research did not receive any financial support

Competing Interests: The authors have declared that no competing interests exist

BACKGROUND: Nevus Sebaceous (NS) is hamartoma predominantly composed of sebaceous glands and is classified as a type of epidermal nevus. In most case, clinical manifestation of NS is typical, so histopathology examination is important only in atypical lesions for its risk of malignancy. Clinical symptoms are plaques or papules (100%), appearing in the head area (100%) with smooth surface (65.8%), usually with hair loss (60.7%). The histopathology is mostly characterized by the image of sebaceous gland hyperplasia (100%), no hair follicles (60.7%) or immature follicles (14.3%).

AIM: The aim of our study is describing clinical and histopathological manifestation, make diagnosis and evaluate the best therapy.

METHODS: Our study recruited 38 patients with NS, 3 patients (7.9%) with atypical aspects. All patients were treated by surgical excision.

RESULTS: Complications as hair loss and infections were reported in 36.8% patients. No patients had recurrence after one year of treatment.

CONCLUSION: Based upon our experience, surgery is cheap, associated with high aesthetics effectiveness and low recurrence rate, proposing as the first choice for treatment of NS.

Introduction

Nevus Sebaceous (or Nevus of Jadassohn) is hamartoma, predominantly composed of sebaceous glands. It was classified as a type of epidermal nevus and was described firstly in 1895 by Jadassohn. NS occurs with equal sex and race frequency. Etiology and pathophysiology are still unclear. Recently, some studies showed that NS may relate to RAS mutation [1] and human papillomavirus [2].

NS often occurs at birth, with newborn incidence of 0.3% [3], or in early childhood. Rarely, NS can combine with disorders of the central nervous system, skeletal deformities, ocular lesions to make nevus sebaceous syndrome [4]. Risk of malignancy

with NS is relatively low, as reported in literature, most associated with basal cell carcinoma (BCC), trichoblastoma, trichilemmoma [5].

The aim of our study is describing clinical and histopathological manifestation, make diagnosis and evaluate the best therapy.

Methods

A group of 38 patients was diagnosed with NS by clinical and histopathology manifestations from September 2016 to July 2017 at National hospital

dermatology and venereology in Vietnam.

All 38 patients were treated by surgery. One-year follow up evaluated lesions clearance, complications, scars and possible recurrence.

Almost all patients were visited to our hospital because of aesthetics reasons (57.9%). Complications were found in 47.4% patients, such as itchiness (23.7%), bleeding (2.6%) or both (21.1%).

Results

Every NS affected cephalic area, with most typical clinical signs as shiny smooth surface (65.8%) and hair loss (60.7%) as presented in Table 1.

Table 1: Clinical manifestations of NS

Clinical manifestations	Patients (n = 38)	Percentage (%)	
Located	Scalp	28	73.7
	Face	8	21.1
	Neck	2	5.3
	Others	0	0
	Smooth	25	65.8
Surface	Rough	13	34.2
	Loss	17	60.7
Hairs on lesion	Less	11	39.3
Tumor on primary lesion		1	2.6

We noted that 80% of lesions located in hair-bearing area had an oval shape, while 80.7% lesions located in others site (face and neck) had a linear shape.

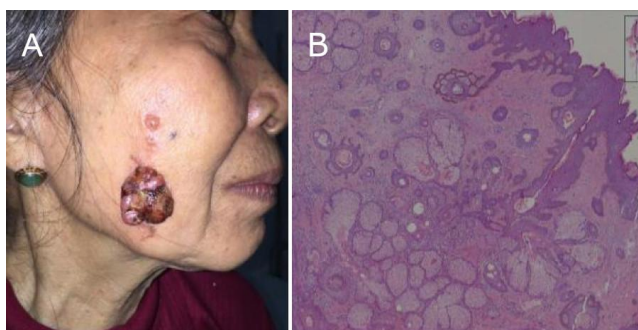


Figure 1: a) A tumor developed on sebaceous nevus; b) Histopathology showed sebaceous nevus

Only 1 patient presented clinically with BCC on NS (Figure 1) but histopathology confirmed that 3 more patients had neoplastic involvement, such as trichilemmoma, hidradenoma papilliferum and benign hyperplastic squamous epithelium. Prior to 2000, the rate of BCC on NS was quite high, although in 21% of cases it could be trichoblastoma misdiagnosis. Recent studies showed an incidence lesser than 7.1%, which is similar to our results [5]. Other histopathological signs of nevus sebaceous are listed in Table 2.

Because of the small size of lesions (mean area 7.2 cm²), 86.8% patients were treated by surgery

and direct closure. The remaining five patients required reconstruction with skin flap.

Table 2: Histopathology manifestations of NS

Histopathology manifestations	Patients (n = 38)	Percentage (%)
Sebaceous gland hyperplasia	38	100
Sebaceous gland associated with epidermis	29	76.3
Papillomatosis	27	71.1
Hair follicles	Absent	60.7
	Immature	14.3
	Mature	25.0
Tumor on histopathology	3	7.9

BBCs were treated with MOHS surgery. Hair loss in scalp lesions improves after surgery ($p = 0.036$). 100% patient presented flat scar at 3 months follow up, as shown in Figure 2. No patient suffered from hypertrophic scar, keloid scar or ugly scar after surgery. No recurrence was reported after 1 year of follow-up. Based upon our experience, surgery is the first choice of treatment. Other methods include photodynamic therapy (PDT), laser CO₂ or dermabrasion but presents higher recurrence rate [6], [7], [8] and are suggested only for no hair areas (face, neck, extremities and trunk).



Figure 2: Flat scar at 3 months after NS removal

Discussion

Diagnosis of NS depends on clinical manifestation but histopathology is useful to confirm the diagnosis and to rule out malignant involvement.

Based upon our experience, surgery is cheap, simple, associated with high aesthetics effectiveness and low recurrence rate, proposing as the first choice for treatment of NS.

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