

Solitary pedunculated lipofibroma in 39-year-old woman: a case report

Lipofibroma pedunculado solitário em mulher de 39 anos: relato de caso

Lipofibroma solitario pedunculado en una mujer de 39 años: informe de un caso

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Putu Erika Paskarani

ORCID: <https://orcid.org/0000-0003-2869-9071>
Udayana University Hospital, Indonésia
Faculty of Medicine Udayana University, Indonésia
E-mail: erika_paskarani@unud.ac.id

Putu Astri Novianti

ORCID: <https://orcid.org/0000-0002-8952-3347>
Udayana University Hospital, Indonésia
Faculty of Medicine Udayana University, Indonésia
E-mail: novianti85@unud.ac.id

Made Dalika Nareswari

ORCID: <https://orcid.org/0000-0002-6973-3961>
Faculty of Medicine Udayana University, Indonésia
E-mail: dalika.dn@gmail.com

Abstract

Introduction: Pedunculated lipofibroma is a challenging case. It's a slow growing mass lesion which can affect both children and adult. The diagnosis of pedunculated lipofibroma can be confused with other benign papillomas due to their characteristic appearance. **Objective:** To define the clinicopathological findings of pedunculated lipofibroma. **Methodology:** Descriptive study as case report type, which use secondary data from patient medical record. **Case presentation:** This paper reports a 39-year-old woman, who has a slow growing mass lesion on her left thigh for almost 3 years. The lesion start impeding her daily life due to pain and the lesion get bigger which make her get trouble especially when she wants to wear her jeans. The diagnosis of pedunculated lipofibroma can be confirmed by the histopathologic findings showing isolated groups of ectopic mature adipocytes within the dermis. Generally, the tumor itself doesn't need any specific treatment, however the location and size affect the patient performance. **Conclusion:** Based on clinicopathological findings, the patient diagnosed with solitary pedunculated lipofibroma located at medial femur sinistra.

Keywords: Pedunculated lipofibroma; Clinicopathological case; 39 years old woman.

Resumo

Introdução: O lipofibroma pedunculado é um caso desafiante. É uma lesão de massa de crescimento lento que pode afetar tanto crianças como adultos. O diagnóstico de lipofibroma pedunculado pode ser confundido com outros papilomas benignos devido à sua aparência característica. **Objetivo:** Definir os achados clínico-patológicos do lipofibroma pedunculado. **Metodologia:** Estudo descritivo como tipo de relatório de caso, que utiliza dados secundários do registro médico do paciente. **Apresentação do caso:** Este artigo relata uma mulher de 39 anos, que tem uma lesão de massa de crescimento lento na coxa esquerda há quase 3 anos. A lesão começa a iminência da sua vida diária devido à dor e a lesão torna-se maior, o que a faz ter problemas, especialmente quando quer usar as calças de ganga. O diagnóstico de lipofibroma pedunculado pode ser confirmado pelos achados histopatológicos mostrando grupos isolados de adipócitos ectópicos maduros dentro da derme. Geralmente, o tumor em si não necessita de qualquer tratamento específico, contudo a sua localização e tamanho afetam o desempenho do paciente. **Conclusão:** Com base em achados clinicopatológicos, o paciente diagnosticado com lipofibroma pedunculado solitário localizado no fêmur sinistra medial.

Palavras-chave: Lipofibroma pedunculado; Caso clínico-patológico; Mulher de 39 anos.

Resumen

Introducción: El lipofibroma pedunculado es un caso difícil. Es una lesión masiva de crecimiento lento que puede afectar tanto a niños como a adultos. El diagnóstico del lipofibroma pedunculado puede confundirse con otros papilomas benignos debido a su aspecto característico. **Objetivo:** Definir los hallazgos clinicopatológicos del lipofibroma pedunculado. **Metodología:** Estudio descriptivo tipo reporte de caso, que utiliza datos secundarios de la historia clínica del paciente. **Presentación del caso:** Se presenta el caso de una mujer de 39 años que presenta una lesión masiva de crecimiento lento en el muslo izquierdo desde hace casi 3 años. La lesión empezó a dificultar su vida cotidiana debido al dolor y a que la lesión se hizo más grande, lo que le causó problemas, especialmente cuando quiso ponerse los vaqueros. El diagnóstico de lipofibroma pedunculado puede confirmarse por los hallazgos histopatológicos que muestran grupos aislados de adipocitos maduros ectópicos dentro de la dermis. Generalmente, el tumor en sí no necesita

ningún tratamiento específico, sin embargo la localización y el tamaño afectan al rendimiento del paciente. *Conclusiones:* En base a los hallazgos clinicopatológicos, el paciente fue diagnosticado de lipofibroma pedunculado solitario localizado en la sinistra medial del fémur.

Palabras clave: Lipofibroma pedunculado; Caso clinicopatológico; Mujer de 39 años.

1. Introduction

Pedunculated lipofibroma or also called nevus lipomatosus cutaneus superficialis a rare type of connective tissue nevus (Weedon, 2002; Vinay et al., 2017). It characterized by the presence of mature ectopic adipose tissue in the dermis (Kaw et al., 2005; Hong et al., 2013). The most common site lesion at pelvic girdle, particularly at gluteal region. However, other studies found the lesion at shoulder, thorax, and abdomen (Ozturkcan et al., 2000) There is a report of multiple lesions in a zonal distribution occurring characteristically on the scalp, ear, face, forehead, and neck (Bancalari et al., 2011; Ghosh et al., 2013).

The diagnosis of pedunculated lipofibroma can be confused with other benign papillomas due to their clinical appearance (Gollow et al., 2019; Carvalho et al., 2016). Clinically, at birth it characterized by plaque type with flesh to yellow-colored papules and nodules and it became apparent in the first 2 decades of life. In contrast, patient older than 30 years of age presenting with isolated papules or nodules anywhere on the body, most commonly in the trunk and axillae (Hong et al., 2013; Vinay et al., 2017). For that reason, it is quite challenging to reveal the diagnosis of pedunculated lipofibroma and histopathologic examination were important to define this lesion. Here, we reported a case of pedunculated lipofibroma located at medial thigh sinistra in 39 years old woman.

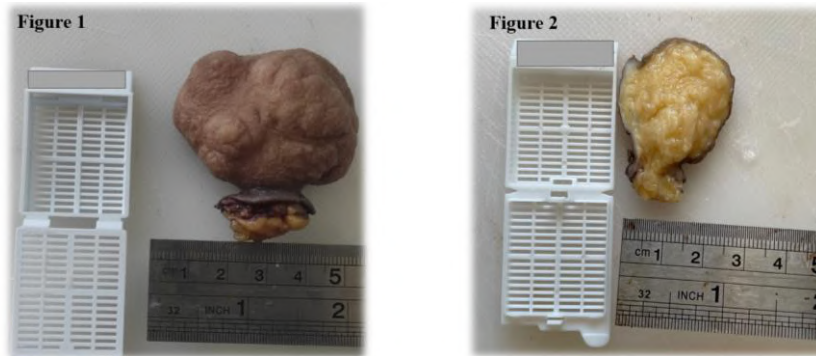
2. Methodology

This is a descriptive study of case report type. The case study approach is particularly useful to employ when there is a need to obtain an in-depth appreciation of an issues which presenting any unique, rare clinical or pathological case and illustrate broader lessons that may be learnt (Crowe et al., 2011; Pereira et al., 2018). Analytical aspect of this study was obtained from complete history taking, clinical examination and confirmed by pathological examination. The case report study approved by research ethics committee did not conduct any ethical clearance for case report due to the case already discusses at clinicopathological conference and approved by clinician, patient, and pathologist. Following ethical principles, the patient consented to disseminating the data and displaying images of her case for academic purposes through signing of a free and informed consent form.

3. Case Report

A 39-year-old woman come to policlinic with chief complaint polypoid mass on her left thigh since 3 years ago. It starts with small lump and get bigger in the past 1 years. It starts feels pain and she difficult to wear her jeans. The location and size of the mass had quite impacted her daily living. On examination, the patient was systemically well with no lymphadenopathy, no history of diabetes mellitus and other metabolic disease. Clinically, the size of the mass 4x5x5 cm, the lesion covered by skin without any erosion and ulceration (Figure 1). It diagnosed with soft tissue tumor femur sinistra suspect neurofibroma with differential diagnosis giant papilloma. The surgeon decides to do excision biopsy and the specimen referred to pathology anatomy laboratory for further examination.

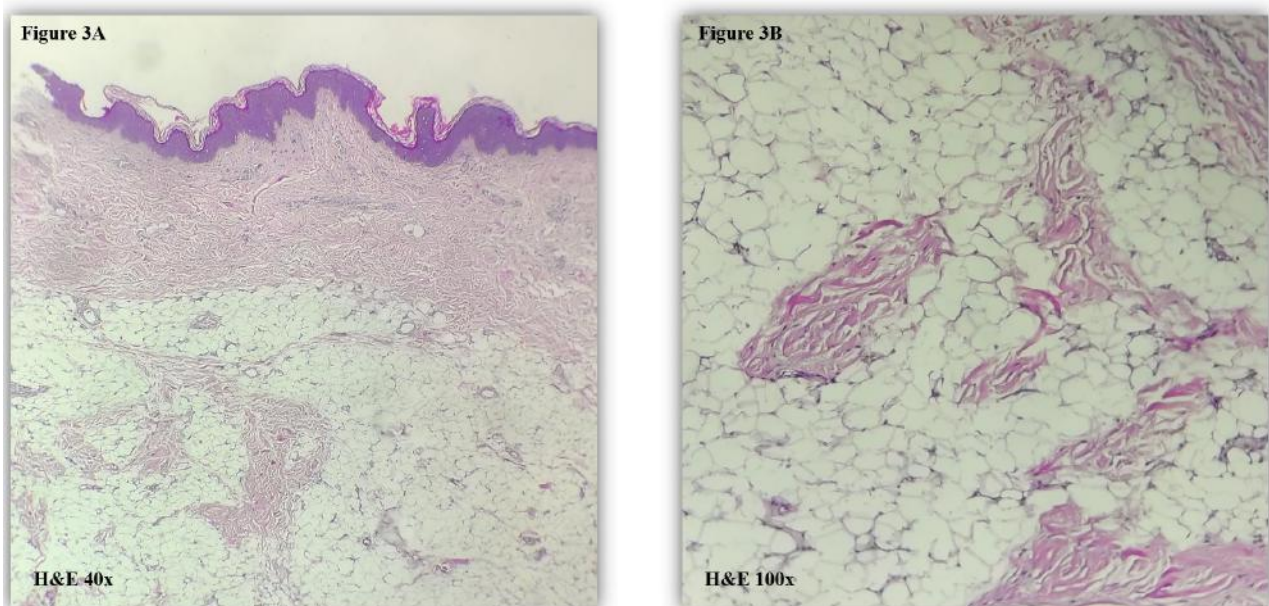
Figures 1 and 2. Macroscopic Findings.1. Pedunculated mass; 2. Yellowish mass on incision



Source: Authors.

At the laboratory, specimen was fixated in 10% formalin buffer for 24 hours. At the next day, it incised and measured, it contains a yellowish tumor mass which densely bounded entire tissues (Figure 2). Microscopic findings revealed a polypoid mass covered by skin. The epidermis shows papillomatosis, and it were intact without thinning, erosion, or ulceration. The mass formed predominately by lobules and islands of adipocytes replacing the dermis (Figure 3A). Proliferation of mature adipocytes is trapped between bundles of dermal collagen fibers (Figure 3B). The adipocyte nuclei were eccentrically placed with light atypia. There is no sign of mitosis and necrosis.

Figure 3. Microscopic Findings. **3A.** Adipocyte clusters without capsule in reticular dermis and epidermis shows slightly papillomatosis; **3B.** Mature adipocyte tissues trapped between bundles of dermal collagen fibers.



Source: Authors.

4. Discussion

Pedunculated lipofibroma is rare benign hamartous condition characterized by ectopic adipose tissues in the dermis and a solitary form of nevus lipomatosus cutaneus superficialis (Hong et al., 2013; Lima et al., 2017) The first case has been defined by Hoffman and Zurhelle in 1921 (Lane et al., 2003; Patil et al., 2014). Clinically, there are two principal presentations. The classic form, appeared as cluster grouped of soft, flesh, often cerebriform nodules. The second form comprises a solitary, domed,

sessile papule, which usually develops in adult life. The predilection for lesion usually found on the lower trunk, knee, axillae, arm, ear, or scalp (Bancalari et al., 2011; Ghosh et al., 2013). Other studies also found the distribution is usually linear along lines of skin folds. The site of predilection is pelvic girdle, most commonly the buttock, sacral and coccygeal region, and posterior thigh (Lane et al., 2003; Jane et al., 2013). Our cases were found in extremities especially at medial thigh sinistra as solitary pedunculated lesion.

The diagnosis of pedunculated lipofibroma can be confused with other benign papillomas due to their characteristic appearance (Gollow et al., 2019; Carvalho et al., 2016). Perhaps the rarity of reports of this lesion is due to lack of recognition to distinguish pedunculated lipofibroma from another benign protuberant lesion. For those reason, the diagnosis of pedunculated lipofibroma can be confirmed by the histopathologic findings showing isolated groups of ectopic mature adipocytes within the dermis (Buch et al., 2005; Kaw et al., 2005). The quantity of fat is variable but may constitute up to 50% of dermal tissues and can result in great irregularity of dermal subcutaneous interface. In some case the density of the collagen bundles, the number of fibroblast and the vascularity are greater than in normal skin (Weedon., 2002; Linberg et al., 2019; Goucha et al., 2011). The pathogenesis of pedunculated lipofibroma is unknown despite several theories. The proposed theories are degenerative changes in the collagen and elastic tissue, displacement of subcutaneous adipose tissue into the dermis, and origination and differentiation from the walls of dermal vessels (Bancalari et al., 2011; Gollow et al., 2019).

The clinical and pathologic differential diagnosis in this patient include fibroepithelial polyp, neurofibroma and lipoma. In the case of fibroepithelial polyps are benign mesenchymal mass characterized by polypoid dominated by stroma proliferation with overlying squamous epithelium. It usually smaller lesion 2-5mm with rough surface and filiform. Those all above absent in this case (Nirenberg et al., 2022). Beside it, neurofibroma usually become others possibility clinically. As we all know that neurofibromas are the most common peripheral nerve sheet and residual interspersed myelinated and unmyelinated axons embedded in extracellular matrix tumor which exhibit a differentiated schwann cells, perineural like cells, fibroblast, mast cells diffuse. Histopathologically, it encapsulated biphasic tumor with compact areas of spindle cells (Antoni A) showing occasional palisading (verocay bodies), alternating with loosely arranged foci (Antoni B) (Perry et al., 2020). All those above are absent in this case. Otherwise, lipomas are common adult subcutaneous tumors formed by yellow greasy cut surface of lobulated mature adipocytes with thin and delicate capsule which in this case the tumor was unencapsulated (Linberg et al., 2019).

The treatment is generally not necessary except for cosmetic reasons (Dhamija et al., 2012; Kaw et al., 2005; Chougule et al., 2007). However, surgical excision may be applied if there are a cosmetic and functional problems. As in our cases the lesion quite impacted her daily living, therefore surgical excision applied. The recurrence has not been documented yet.

5. Conclusion

The pedunculated lipofibroma is challenging case, which clinically difficult to recognize from others papillomatic lesion. It's quite rare, and some cases has uncommon predilection site. Although it's a benign lesion, it can grow unexpectedly and impending patient daily living performance. For those reason, we hope our case report may increase our curiosity especially for benign lesion and we suggest for further research will revealed other interesting pedunculated case which diagnostically challenging define by clinicopathological approach.

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