

The Benign Annexure- Acrochordon.

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Abstract

Acrochordon is a common, benign cutaneous neoplasm frequently associated with comorbid conditions such as obesity, diabetes, aberrant serum lipids and components of metabolic syndrome. Acrochordon is additionally nomenclated as skin tag, soft fibroma, cutaneous papilloma, cutaneous tag, fibroma pendulum, fibroma molluscum, fibroepithelial polyp or papilloma.

Keywords: Acrochordon, cutaneous neoplasm, metabolic syndrome, fibroepithelial polyp, seborrheic keratosis.

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Introduction

As a benign, cutaneous lesion commonly enunciated in adults, acrochordon typically demonstrates miniature polyps usually confined to axilla, groin, face, neck, intertriginous region, and eyelids. Multiple lesions of acrochordon can be exemplified in accompaniment with Birt-Hogg-Dube syndrome [1,2]. Acrochordons situated upon undesirable sites or cosmetically unacceptable lesions can be managed with adequate surgical extermination [2].

Disease Characteristics

Apart from a definitive association with obesity and insulin resistance, acrochordon depicts a familial predilection. In concordance with several varieties of common, benign, cutaneous lesions exhibited within the adult population such as benign melanocytic nevus, seborrheic keratosis or cherry angioma, incidence of acrochordon enhances with increasing age and depicts an estimated prevalence of 46%. Lesions can quantifiably amplify during pregnancy [1]. Acrochordons circumscribing the neck and axillary region can be concordant with acanthosis nigricans, appear as velvety, brown plaques and particularly emerge on identical sites. Also, lesions of acanthosis nigricans can delineate a morphological component of a papillomatous configuration [1,2]. Birt-Hogg-Dube syndrome is an exceptional, inherited, autosomal dominant genodermatosis frequently demonstrating multiple fibrofolliculomas and trichodiscomas which can be clinically indistinguishable from acrochordons. Birt-Hogg-Dube syndrome is engendered by chromosomal mutation of the FLCN gene producing folliculin which is essentially a tumour suppressor protein. Birt-Hogg-Dube syndrome is also associated with spontaneous pneumothorax and varieties of renal cell carcinoma, especially chromophobe and hybrid oncocytic carcinoma. Variants of basal cell carcinoma can clinically simulate acrochordon. Fibro-epithelioma of Pinkus is a subcategory of basal cell carcinoma which is typically delineated as a pink, acrochordon-like lesion or a pedunculated papule and emerges upon inferior and dorsal torso. Fibro-epithelioma of Pinkus was initially nomenclated

by Hermann Pinkus in 1953 and described as a premalignant fibro-epithelial neoplasm [1,2]. Concordance of acrochordons and acanthosis nigricans is observed as the aforesaid conditions are usually associated with obesity, insulin resistance and diabetes [2,3]. Acrochordons emerging in absence of adjunctive cutaneous lesions require evaluation for associated comorbid conditions such as obesity, diabetes, or prediabetes. Acrochordons can be engendered by accumulation of collagen, prominent vasculature, and a superimposed epidermal layer. Elderly population is particularly susceptible to the emergence of acrochordons. Additionally, acrochordons can display a familial pattern of disease inheritance [3].

Clinical Elucidation

Cogent symptoms such as itching, pain, abrasive effects or inferior cosmetic outcomes are denominated with the eruption and dissemination of acrochordon and impact the quality of life. Acrochordon is a pedunculated, fleshy tumefaction usually situated upon the neck, axilla, inguinal fold, or intertriginous zones although no segment of the cutaneous surface is exempt. Acrochordon generally appears as a flesh colored or hyperpigmented, pedunculated polyp. Occasionally, lesions appear to be hyperkeratotic or filiform or depict a warty appearance or can concur with a wart or verruca vulgaris. As acrochordon presents as a flesh colored or dark brown, sessile, or pedunculated papilloma of soft consistency, the dimension varies from a few millimeters to multiple centimeters. Enlarged lesions can adhere to superimposed cutaneous surfaces with slender, elongated, stalk-like protrusions. A premalignant or malignant lesion can exceptionally appear as an acrochordon or as a component of an acrochordon. Notably, neoplasm such as malignant melanoma, squamous cell carcinoma or fibro-epithelioma of Pinkus subtype of basal cell carcinoma can simulate acrochordon-like pink papules and are predominantly situated upon the inferior lumbar region. On account of exceptional occurrence of aforesaid neoplasia, comprehensive evaluation of acrochordon-like lesions is unnecessary [3,4]. Specific indications mandate extensive evaluation of acrochordons such

as probable dysplastic or atypical nevus, malignant melanoma, basal cell carcinoma, squamous cell carcinoma, acrochordon-like neoplasm configuring fresh or modified lesions or the occurrence of Birt-Hogg-Dube or identical syndromes [4].

Histological Elucidation

Generally, a histological assessment of acrochordon is not required. Morphological enunciation of acrochordon reveals a

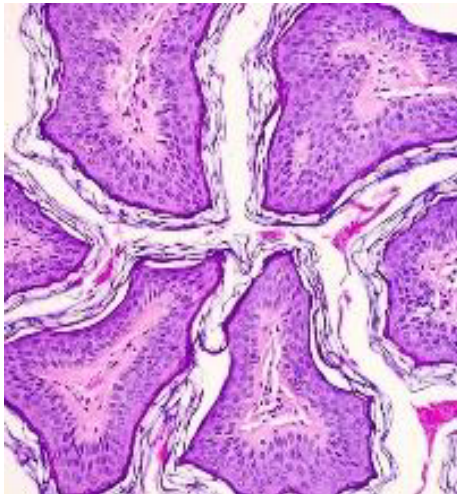


Figure 1. Acrochordon with epithelium lined fibro-vascular cores, prominent acanthosis and epidermal hyperplasia.



Figure 2. Acrochordon with epithelial projections of stratified squamous epithelium abutting fibrous and vascular cores with adipose tissue cells.

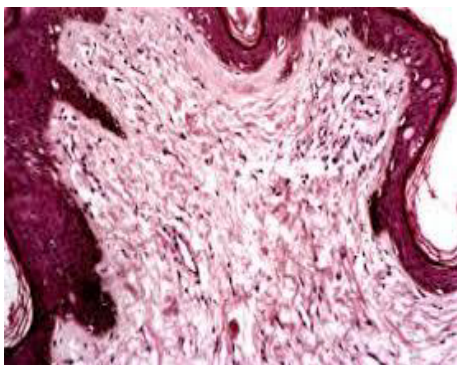


Figure 3. Acrochordon with abundant fibro-vascular stroma and superimposed squamous epithelial lining with acanthosis and epidermal hyperplasia.

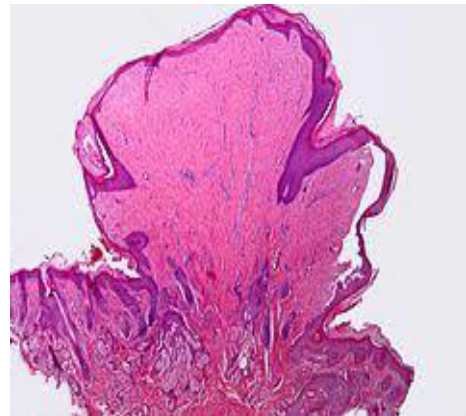


Figure 4. Acrochordon with prominent fibro-vascular core, a superficial squamous epithelial lining, polypoidal configuration and mature adipose tissue cells.

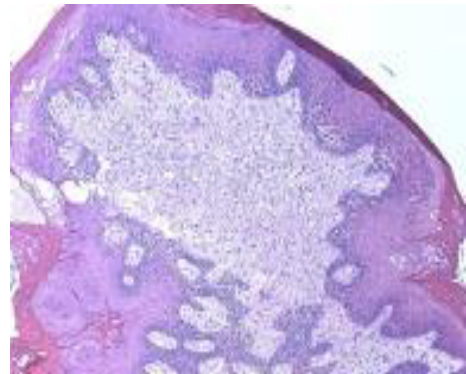


Figure 5. Acrochordon with dense epithelial lining of stratified squamous epithelium, acanthosis, hyperplasia and an underlying fibro-vascular stroma.

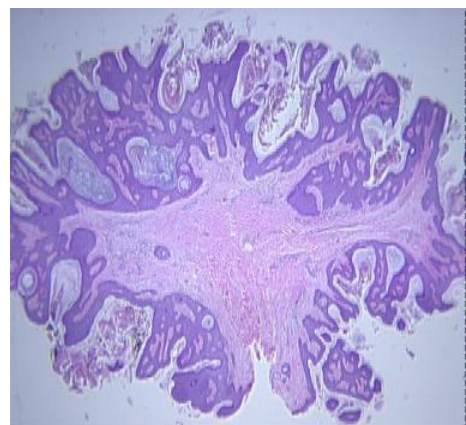


Figure 6. Acrochordon with epidermal hyperplasia, epidermal projections, papillomatous configuration and a fibro-vascular core beneath the epithelial layer.

papillary dermis comprising of disseminated collagen fibres, distended capillaries and lymphatic vessels along with an absence of appendageal structures such as hair follicles or sweat glands. On microscopy, core of fibro-vascular tissue is overlaid with stratified squamous epithelium. Enlarged lesions can depict a flattened epidermal surface or a centroidal core of mature adipose tissue. Miniature lesions can display epidermal hyperplasia or modifications resembling seborrheic keratosis. Centric tissue core is constituted of loosely configured collagen fibres along with augmentation of blood vessels. Pagetoid



Figure 7. Acrochordon with a loosely adherent fibro-vascular core and a superimposed stratified squamous epithelial lining.



Figure 8. Acrochordon with a dense fibrous tissue core, minimal vasculature and a lining of stratified squamous epithelium.

dyskeratosis is occasionally demonstrated. Acrochordon can undergo torsion induced ischemic necrosis [4,5].

Differential Diagnosis

Common benign, cutaneous lesions can recapitulate acrochordon such as benign melanocytic nevus and neurofibroma. Thus, a cogent histological distinction is required betwixt acrochordon and benign melanocytic nevus or neurofibroma. Nevertheless, differentiation or histopathological confirmation of benign lesions is unnecessary as therapeutic management remains unchanged [4,5]. Adjunctive benign cutaneous lesion clinically simulating acrochordon is seborrheic keratosis, particularly the variant designated as dermatosis papulosis nigra (DPN) which can resemble facial lesions of acrochordon. Dermatitis papulosis nigra characteristically demonstrates typically pigmented, miniature, pedunculated or elevated papules on the face or adjacent regions and is frequent in subjects of African American descent. Demarcation from pedunculated seborrheic keratosis is necessitated, a condition which displays minimal stroma and characteristic epidermal changes, akin to seborrheic keratosis. A segregation is required from accessory tragus which is possible on delineating the site and occurrence of vellus hairs with occasional cartilage. Distinction from cutaneous pseudo-sarcomatous polyp is required wherein the polyp demonstrates bizarre, stromal cells as a manifestation of degenerative phenomenon. Pleomorphic fibroma demonstrates pleomorphic, hyperchromatic, spindle shaped cells which are immune reactive

to CD34+ and accompanied by infrequent mitotic figures [5,6]. Differentiation from polypoid intradermal melanocytic nevus can be made on account of nests and aggregates of melanocytes appearing within the dermis [6].

Investigative Assay

On account of benign nature of acrochordon, cogent laboratory, radiographic or adjunctive evaluation remains unnecessary. It is recommended that multiple tissue specimens of acrochordons be submitted for histological processing within independent, separate containers. Thus, origin of a suspected, concurrent malignancy such as a malignant melanoma or basal cell carcinoma can be satisfactorily delineated whereas with tissue specimens accumulated in a singular container, it may be challenging to discern the incursion of a particular neoplasm [5-7].

Therapeutic Options

A comprehensive reassurance is efficacious in individuals enunciating acrochordon as the commonly discerned benign lesions do not mandate a follow up or extensive concern. Irritating, undesirable or cosmetically inferior lesions can be managed with adequate surgical extermination [7]. Frequently adopted is the modality of snip excision wherein lesions are removed with scissors. Also, cryotherapy with liquid nitrogen can be employed. Adjunctive treatment methodologies applicable are shave excision, electrocautery or tissue ligation with a string or a suture. Multiple lesions can be removed in a singular sitting although an initial, solitary lesion can be excised as an exemplary phenomenon [1,2]. Subjects demonstrating acrochordons concurrent with acanthosis nigricans necessitate an evaluation for potential emergence of diabetes. Aforesaid subjects require appropriate primary care with cogent dietary, behavioural and lifestyle modifications with sufficient exercise and physical. Notwithstanding, despite the adoption of aforesaid manoeuvres, emergence of acrochordons may not be circumvented in susceptible individuals [7].

Conflict of Interest

None.

Funding

None.

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