DOWNLOAD PDF TRICHILEMMAL CARCINOMA

Chapter 1 : Trichilemmal carcinoma - Libre Pathology

Trichilemmal carcinoma is a rare hair follicle tumour that is thought to occur from a malignant transformation of a benign trichilemmoma. The tumour develops from the outer root sheath of the hair follicle.

Trichilemmal carcinoma Definition Trichilemmal carcinoma is an uncommon malignant tumor of the hair follicle, and is assumed to be the malignant counterpart of the benign trichilemmoma. Description Trichilemmal carcinomas most often occur on part of the skin that has been often exposed to the sun, like the face. The tumors look like tan or flesh-colored spots. They can resemble warts and sometimes have a hair in them. Usually, a trichilemmal carcinoma will occur as an isolated lesion. Trichilemmal carcinomas are thought to be the malignant form of the non-cancerous tumors called trichilemmomas, which are seen in Cowden syndrome. Cowden syndrome is an inherited disorder that predisposes individuals to breast and thyroid cancer. The disease is inherited in an autosomal dominant inheritance pattern. With autosomal dominant inheritance, men and women are equally likely to inherit the syndrome. Genetic testing is available for Cowden syndrome but, due to the complexity, genetic counseling should be considered before testing. Although they are thought to be related to trichilemmomas, none of the reports of trichilemmal carcinomas have been seen in patients with Cowden syndrome. It is important to note that trichilemmal carcinoma is not the same as "malignant proliferating trichilemmal tumor, " which is usually seem on the scalp and the back of the neck. Demographics Trichilemmal carcinomas are most often seen in older people. They occur with equal frequency in both males and females. Causes and symptoms The causes of trichilemmal carcinoma are unknown. The only recognizable symptom is the presence of an unusual, tan or flesh-colored spot on the skin. Diagnosis Diagnosis of a trichilemmal carcinoma is very important. Because the tumors are so rare, a physician may not immediately recognize its exact diagnosis. A dermatologist will suspect an abnormality on the skin and have it removed. It is only on the pathologic examination when a physician examines the abnormality under a microscope that the tumor can be correctly classified. Treatment team The treatment of trichilemmal carcinoma will involve a dermatologist a physician who specializes in diseases of the skin and a surgeon a physician who will surgically remove the tumor. Clinical staging, treatments, and prognosis Once a trichilemmal carcinoma has been diagnosed, a surgeon must remove it. It is necessary that documented clear margins are obtained, indicating that the entire tumor has been removed. There is a chance that the tumor will recur return locally in the same spot or near the same spot. If this occurs, the recurrent tumor needs to be surgically removed as well. It is very unlikely that a trichilemmal carcinoma will metastasize spread to other parts of the body , and further treatment with chemotherapy is not needed. Coping with cancer treatment The surgical procedure to remove a trichilemmal carcinoma is relatively straightforward and low-risk. Most surgeries will be done on an outpatient basis, requiring no stay in the hospital. A small scar on the skin may be left after the tumor is removed. No clinical trials for trichilemmal carcinoma could be identified. Prevention Because the underlying cause of trichilemmal carcinoma is largely unknown, preventive strategies have not been suggested. American Journal of Pathology 85 2 , Davidowski, and Mary E. Handbook of Dermatology and Venereology. Pathologic examination â€”When a physician examines a small section of the tumor under a microscope. Cite this article Pick a style below, and copy the text for your bibliography.

Chapter 2 : Pathology Outlines - Trichilemmal (tricholemmal) carcinoma

Trichilemmal carcinoma (also known as "tricholemmal carcinoma") is a cutaneous condition reported to arise on sun-exposed areas, most commonly the face and ears.:

Snigdha Goyal, Flat no. This article has been cited by other articles in PMC. Abstract Proliferating trichilemmal tumor PTT is a benign tumor originating from the outer root sheath of a hair follicle. Malignant transformation in case of PTT is very rare and unusual finding. It is usually confused with squamous cell carcinoma both sharing many common features. So the identification of malignant PTT is very essential. Only 39 well-documented cases of malignant proliferating trichilemmal cyst have been published to date in the English language literature. We hereby present a case of a year-old female patient with a rapidly growing swelling on the scalp. Malignant, proliferating trichilemmal tumor, squamous cell carcinoma Introduction Proliferating trichilemmal tumor PTT is a benign tumor originating from the outer root sheath of a hair follicle. In rare instances, malignant transformation has been reported, evidenced by regional or distant metastases. It is usually a solitary lesion and most commonly occurs in elderly women. PTT was distinguished from proliferating epidermoid cysts in The painless swelling was present for 3 years and showed recent rapid enlargement. The patient was otherwise healthy with no significant past medical history. No history suggestive of trauma and chronic irritation was present. Swelling was firm in consistency. There were no palpable neck lymph nodes. FNA of the swelling was done. Hematoxylin and Eosin stain smear showed clumps of dysplastic squamoid cell cluster in a necrotic background [Figure 1]. A diagnosis suggestive of squamous cell carcinoma was offered on FNA and urgent excision was advised.

Chapter 3 : Pathology Outlines - Trichilemmoma

Introduction. Trichilemmal carcinoma (TC) is a rare malignant tumor that develops from the external root sheath of the hair follicle. It usually is found in the skin of the face or ears of elderly women on areas that are exposed to the sun, and TC generally has an indolent clinical course (1,2).

The Internet Journal of Pathology. Abstract Trichilemmal carcinoma is a rarely diagnosed cutaneous adnexal neoplasm. It is derived from or differentiates towards the outer root sheath of the hair follicle and is the malignant counterpart of trichilemmonma. Here we report a case of TLCA that developed in a 68 year old male lung transplant recipient who was on immunosuppressive therapy. This patient has a long history of multiple skin tumors including basal cell carcinoma. Reports of TLCA in the literature are limited. In particular, very few cases of TLCA in immunosuppressed patients have been reported. We will review the current literature in the area and discuss the need for specific pathological analysis of all excised lesions from this patient population. Introduction Trichilemmal carcinoma is a rare cutaneous adnexal malignant tumor deriving from the outer root sheath of hair follicles trichlemma ; therefore it represents the malignant counterpart of trichilemmona. TLCA has been only rarely been reported in this clinical setting. We will also review the current literature in this area. Case Report We report the case of cutaneous TLCA excised from the neck of a 68 year old male who was on long-term immunosuppressive therapy following a lung transplant six years ago. Multiple skin cancers including basal cell carcinoma had been diagnosed during this time. Grossly, the skin ellipse showed a 1. There was superficial erosion and lateral molding by a basal collarette of reactive squamous epithelium Figure 1 Figure 1: Apolypoid lesion that has surface erosion and consist of multiple endophytic lobules of squamous epithelium projecting in deeper dermis The lobules showed peripheral palisading, focal eosinophilic basement membrane mantle and spotty central micro pustules or trihilemmal type of keratinization but most lobules had solid centers. Figure 2 Figure 2: Zonal arrangemement of cells with prominent clear cytoplasm Figure 3 Figure 3: Some centers show abrupt keratinization. Cytologically, peripheral columnar cells and central polygonal cells had prominent cleared cytoplasm. The nuclei were round; not indented like sebaceoytes. The tumor base lacked any inflammatory lichenoid infiltrate typical of keratoacanthoma. The presence of cytologic atypia, many mitotic figures, apoptotic necrosis and focally infiltrative leading edge indicated malignant features. Figure 4 Figure 4: Cytologically it is malignant characterized by pleomorphism, apoptotic necrosis and brisk mitosis but morphology in keeping with TLCA, an appendage tumor recapitulating the outer root sheath of hair follicle tricholemmal sheath. The tumor supporting stroma was fibromyxoid with prominent vascularity was in situ and microinvasive component. Figure 5 Figure 5: PAS shows a high glycogen content in the lobules especially in the centre. Figure 6 Figure 6: PAS and show a high glycogen content in the lobules especially in the centre, original magnification X Figure 7 Figure 7: PAS â€" D shows a high glycogen content in the lobules especially in the centre, original magnification X EMA shows membrane staining in the central zone of the lobules. Figure 8 Figure 8: HPV stains are negative. Figure 9 Figure 9: Negative HPV stain, original magnification X Figure 10 Figure The resection margins of this carcinoma were free from evidence of TLCA thus no further excision was required. Healing of the excision in this patient was uneventful and no recurrence or metastasis of this tumor has occurred to date. Discussion The etiology of trichilemmal carcinoma is unknown. Often the only recognizable symptom is the presence of an unusual, tan or flesh-colored spot on the skin. It has, however, been well documented that transplant recipients are at an increased risk to develop skin cancers, with squamous cell carcinoma being the most common. TLCA however does not seem to follow this trend. It appears from our literature review that TLCA in transplant recipients has only been reported in three other cases. Complete surgical excision is curative. Despite the locally aggressive growth, TLCA is at a very low risk for recurrence or metastases, no reports of recurrence or metastases were observed in any previous cases reported in the literatures. The etiology of TLCA remains unknown. Since TLCA develops preferentially on sun-exposed areas it is likely that ultraviolet radiation plays a role. Additional possible contributing factors in transplant recipient patients may include immunosuppressive treatment and HPV infection. In transplant recipient

patients, TLCA and other cutaneous malignancies may initially appears benign thus underscoring the need for careful clinical evaluation with pathological analysis of all excised lesions from this patient population Trichilemmal carcinoma of the skin mimicking a keloid in a heart transplant recipient. J Heart Lung Transplant. Tumors of the hair follicle. Wong TY, Suster S. A clinicopathologic study of 13 cases. Skin cancers after organ transplantation. N Engl J Med.

Chapter 4 : Pilar cysts (trichilemmal cyst, tricholemmal cyst, wen)

Trichilemmal carcinoma is an uncommon malignant tumor of the hair follicle, and is assumed to be the malignant counterpart of the benign trichilemmoma. Description Trichilemmal carcinomas most often occur on part of the skin that has been often exposed to the sun, like the face.

Biopsies demonstrate cystic structures lined with epithelium showing trichilemmal keratinization, which proceeds without the formation of a granular layer Figure 2. The cyst is filled with brightly eosinophilic, dense keratin that may be focally calcified or may liquefy with age Figure 3. Who is at Risk for Developing this Disease? There is autosomal dominant inheritence of a tendency to develop pilar cysts, and the putative gene TRICHY1 has been mapped to chromosome 3. What is the Cause of the Disease? Etiology Pathophysiology Pilar cysts are thought to arise from the outer root sheath of follicular epithelium of anagen hairs. The development of pilar cysts may be partially genetic. Systemic Implications and Complications Pilar cysts are not associated with any known systemic syndrome. Treatment Options Intralesional corticosteroids if inflamed , 0. Surgical treatment Excision Optimal Therapeutic Approach for this Disease Surgical removal is curative, either by conventional linear or elliptical excision or punch excision technique. Recurrence rates are low. Intralesional steroids may be used if there is rupture and inflammation. Patient Management Treatment of pilar cysts is unnecessary if the lesions are asymptomatic and stable in size. If a proliferating pilar tumor or malignant transformation is suspected, complete excision for histologic exam should be performed. If pilar cysts become inflamed or rupture, injection of intralesional corticosteroids, incision and drainage, or excision are options. Squamous cell carcinoma can develop as well. Large size, a history of rapid growth, ulceration, and marked atypia or infiltrative growth pattern on histopathologic examination can indicate malignant transformation. What is the Evidence? Am J of Med Genetics. A study of a Danish family affected with trichilemmal cysts localizing the gene. A review of five cases of proliferating trichilemmal tumors identifying characteristics that may correlate with aggressive clinical behavior. A description of the punch excision technique for cysts, demonstrating a low 5. Description of the ultrastructure of pilar cysts. One of the original reports of the structure of trichilemmal pilar cysts. No sponsor or advertiser has participated in, approved or paid for the content provided by Decision Support in Medicine LLC.

Chapter 5 : Internet Scientific Publications

Trichilemmal carcinoma is a carcinoma of the outer root sheath. The exact etiology is unknown, but it appears to be related to actinic damage. Immunosuppression may also be a contributing factor, as there is a case report of a lesion in a transplant patient on the mid-chest, a traditionally less sun-exposed site.

Vanessa Ngan, Staff Writer, Advertisement App to facilitate skin self-examination and early detection. Miiskin What is trichilemmal carcinoma? Trichilemmal carcinoma is a rare hair follicle tumour that is thought to occur from a malignant transformation of a benign trichilemmoma. The tumour develops from the outer root sheath of the hair follicle. It is most often found on areas that are exposed to the sun, particularly on the face and ears of elderly women. Trichilemmal carcinoma is considered to have low metastatic potential, meaning it is a low-grade carcinoma that rarely spreads to other parts of the body. What are the clinical features of trichilemmal carcinoma? Lesions of trichilemmal carcinoma are generally found on the scalp, forehead or neck. It is a tan or flesh-coloured spot that may resemble a wart. It most commonly occurs in women over 40 years of age. Even though histological features suggest medium to high grade malignancy, trichilemmal carcinoma usually follow a relatively benign clinical course with no apparent symptoms that cause the patient concern. How is trichilemmal carcinoma diagnosed? Because trichilemmal carcinoma is rare and its presentation is similar to other skin tumours, diagnosis is based on the presence of certain features on histological examination of a skin biopsy. Trichilemmal carcinoma should be differentiated from other skin tumours, such as squamous cell carcinoma and basal cell carcinoma , which are more common. What is the treatment of trichilemmal carcinoma? Complete surgical excision with wide margins cm is the recommended treatment for trichilemmal carcinoma. Mohs micrographic surgery may be used to ensure better margin control. Although recurrent trichilemmal carcinoma is uncommon, there have been rare reports where incomplete resections may have led to local recurrences and metastatic spread. Recurrent tumour must be surgically removed. Currently there is no established treatment for metastatic trichilemmal carcinoma but chemotherapy similar to regimens used for squamous cell carcinoma have been used. Contribute to Dermnet Did you find this page useful? We want to continue to deliver accurate dermatological information to health professionals and their patients â€” for free. Funding goes towards creating articles for DermNet, supporting researchers, and improving dermatological knowledge around the world. Cancer Res Treat ;42 3:

Chapter 6 : Trichilemmal carcinoma: case report

Skin - Nonmelanocytic tumors - Trichilemmal (tricholemmal) carcinoma. This website is intended for pathologists and laboratory personnel, who understand that medical information is imperfect and must be interpreted using reasonable medical judgment.

Wide excision 1cm with clear margins Systemic chemotherapy, e. The decision between a wide excision 1cm with clear margins versus Mohs micrographic surgery is based on anatomical site and aesthetic result optimization. The authors warn that imiquimod may mask tumor recurrence or create disconnected foci of tumor, so long-term surveillance is important. While recurrence, perineural invasion, and metastasis are extremely rare, patients should be evaluated for these sequelae with periodic monitoring. If symptoms occur, imaging studies such as computed tomography CT scans are helpful for evaluating disease extent. There is no established chemotherapy regimen for metastatic trichilemmal carcinoma, but regimens used for highly advanced cases of squamous cell carcinoma, such as cisplatin and cyclophosphamide, have been used. Patient Management Once biopsy results are obtained, explain to patients that trichilemmal carcinoma is a rare type of skin cancer that is usually cured with surgical excision with clear margins. Recurrence, perineural invasion, and metastasis are extremely rare, but reported. Patients should be monitored with periodic surveillance, and any symptoms can be further evaluated with imaging studies such as CT scans. Unusual Clinical Scenarios to Consider in Patient Management Although it is not known whether trichilemmal carcinoma develops from an existing benign lesion or de novo, multiple trichilemmomas are not thought to be a risk factor for trichilemmal carcinoma. Multiple facial trichilemmomas occur in patients with Cowden syndrome, a rare autosomal-dominant disorder affecting the skin, breast, thyroid, gastrointestinal tract, endometrium, and brain. There is only one report of trichilemmal carcinoma occurring in a patient with Cowden syndrome. The recommendation is to biopsy any changing lesions in these patients. What is the Evidence? Wong, TY, Suster, S. A clinicopathologic study of 13 cases". A study of 13 cases of trichilemmal carcinoma, all occurring on sun-exposed, hair-bearing skin. All tumors were treated with surgical excision with clear margins, without recurrence nor metastasis reported after years of clinical follow-up. A study of of trichilemmal carcinoma in seven elderly individuals with sun-exposed skin and a 9-year-old girl with xeroderma pigmentosum. No recurrences or metastases were observed. A report of two cases of trichilemmal carcinoma, one of which was a kidney transplant patient. Both patients were treated with Mohs surgery without recurrence after years of clinical follow-up. Br J Plast Surg. This is the first case report of multiple trichilemmal carcinomas occurring in the same patient. The patient was a year-old Chinese male with a distant history of treated tuberculosis who presented with three trichilemmal carcinomas on his upper chest, one of which was recurrent. The authors hypothesize that the lesions may be due to multiple exposures to x-irradiation. Surgical excision with a 1cm margin was performed on all lesions. There was no recurrence after 18 months of clinical follow-up. J Am Acad Dermatol. A case report of multiply recurrent trichilemmal carcinoma with perineural invasion occurring on the cheek of a year-old Caucasian male. The patient was treated with Mohs surgery with a split-thickness skin graft, but 1 year later the lesion returned. The lesion was again treated with Mohs surgery and it did not return after 2 years. A case report of trichilemmal carcinoma occurring on the cheek of a year-old woman. A case report of metastatic trichilemmal carcinoma occurring on the thigh of a year-old woman. The initial lesion was excised with clear margins, but 2 years later metastasized to regional lymph nodes. Six months later, lung and bone involvement occurred and the patient died. A case report of trichilemmal carcinoma arising in the wall of a proliferating trichilemmal cyst on the scalp of a year-old Japanese woman. PCR analysis of the DNA from both lesions revealed loss of heterozygosity in the proliferating trichilemmal cyst, and complete loss of the wild-type p53 gene allele in the trichilemmal carcinoma. Such findings suggest that total loss of the tumor suppressor gene may contribute to the development of trichilemmal carcinoma. An excellent study investigating the histopathological differentiation of squamous cell carcinoma with clear cells SCC-C from trichilemmal carcinoma by studying 40 cases of SCC-C. No sponsor or advertiser has participated in, approved or paid for the content provided by Decision Support in Medicine LLC.

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Chapter 7 : Trichilemmal carcinoma - Wikipedia

A biopsy specimen revealed trichilemmal carcinoma with pagetoid spread. Mohs micrographic surgery was performed. The diagnosis of tricholemmal carcinoma was confirmed histologically (Fig. 1), and i (Fig. 1), and in some areas the tumor resembled squamous cell carcinoma in situ.

Chapter 8 : Pathology of Trichilemmal Carcinoma - Dr Sampurna Roy MD

Trichilemmal carcinoma is an uncommon cutaneous neoplasm that occurs in sun-exposed areas of older persons. It is thought to be related to the external root sheath of the hair follicle and to be the malignant counterpart of a trichilemmoma.

Chapter 9 : Trichilemmal carcinoma | DermNet New Zealand

Trichilemmal carcinoma was originally described by Headington as a "histologically invasive, cytologically atypical clear cell neoplasm of adnexal keratinocytes which is in continuity with the epidermis and / or follicular epithelium.".