

Eccrine porocarcinoma of the hand: A Case Report

R Singh, S Majumder

Citation

R Singh, S Majumder. *Eccrine porocarcinoma of the hand: A Case Report*. The Internet Journal of Hand Surgery. 2007 Volume 2 Number 1.

Abstract

INTRODUCTION

Ganglions and inclusion cysts of palms are a common presentation in clinical practice. Because of the functional impairment and discomfort a palmar cyst can cause, patients often seek help in the early stages of the disease.

However we present a case of a palmar swelling, cystic in nature, which had been present for twenty eight years. Subsequent surgical excision and histology proved an altogether rarer pathology, an eccrine porocarcinoma.

CASE REPORT

A 73 year-old retired lady was referred from the accident and emergency department for incision and drainage of a suspected infected ganglion in the right palm. The swelling had been present for over 28 years, and the patient attributed its presence to repeated trauma in her job pushing trolleys at a factory. Growth was insidious, reaching a final measurement of 3? x 2 inches[fig 1,2,3], at which size it remained for 15 years. The cyst had become infected in the 24 hours prior to presentation, and was thought to be exacerbated by a bump to the affected hand in the preceding week.

Figure 1

Figure 1



Figure 2

Figure 2



In the past, the patients' GP had previously made a clinical diagnosis of a ganglion but the patient had refused surgical intervention. Co-morbidities included hypertension and diet-controlled diabetes mellitus.

On examination the lady had an infected cyst of approximately 3? x 2 inches from the wrist crease to the distal palmar crease. The cyst was not adherent to the underlying tendons, clinically lying superficial to the palmar fascia. There was no sign of any compression neuropathy.

Figure 3

Figure 3



Figure 4

Figure 4



In theatre, the cyst and the overlying skin was excised, the cyst was found not to be adherent to the underlying palmar fascia[fig 4,5,6] . The defect was covered with a split thickness skin graft 2 days later when the infection had been eradicated .

Figure 5

Figure 5

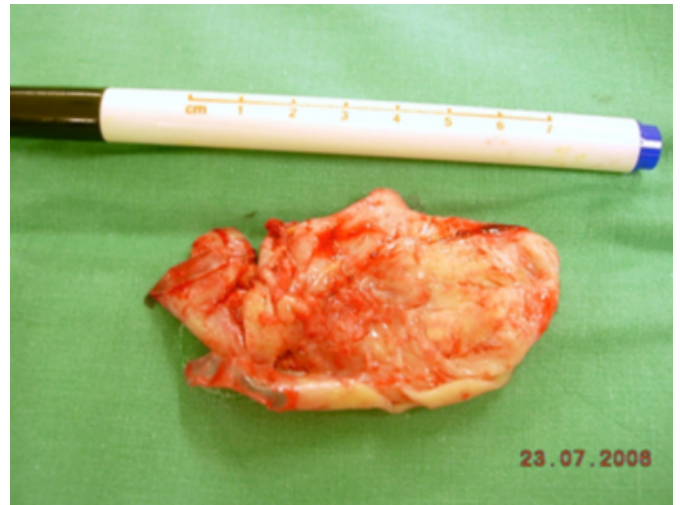


Figure 6

Figure 6



The wound healed well and there was no sign of local recurrence or regional lymphadenopathy at review 4 months following the surgery .

Histological analysis queried the cyst to be a proliferating pilar cyst but finally confirmed the lesion to be a malignant eccrine porocarcinoma .

Patient was reviewed in 3 months time and there was no evidence of recurrence or lymphadenopathy.

A wider excision with 1 cm margins was done in view of the diagnosis following discussion with the multi disciplinary team comprising dermatologists pathologists, oncologists, and the plastic surgeons .

DISCUSSION

Eccrine porocarcinoma, first described in 1963 by Pinkus and Mehregan [2], is a rare malignancy of the eccrine sweat gland. Its incidence is less than 0.01% of all skin biopsy specimens [6] and is more common in females. Some malignancies have been reported as evolving from a benign pre-existing poroma [3].

Eccrine porocarcinoma has been reported most frequently in the lower extremities (44 %), with the remainder in the trunk (24 %) and head (18 %). Only a few cases have been reported in the upper extremities (8 %). A very small proportion have been reported in the hand (3%) [3]. Despite the density of sweat glands in the palm, there seems no correlation with the distribution of eccrine porocarcinomas [7].

The majority of malignant porocarcinomas' present clinically as 'verruccous plaque, polypoid growth, or an ulcerated lesion of long duration.' [3]

A feature which may have confused the diagnosis in this case was the cystic nature of the lesion as no other cases reviewed in literature have been of cystic form.

The tumor is usually characterized by a history of long duration, commoner in elderly population, and has no particular sex predilection.

Conventional surgical resection, MOHS micrographic surgery and radiotherapy have all been tried as treatment options for primary and recurrent tumors. Metastatic tumors have been treated with chemotherapy using 5 fluoro uracil and hyperthermia (Oudet Etal) [9], docetaxel and interferon alpha 2a and isotretinoin (Arslan) [10], and radiotherapy (Da Silva) [11].

The local recurrence rate is in the range of 11-25% (4, 12, 13). Lymph node metastasis occurs in 9.6-19% (12, 13). These data suggest that malignant eccrine porocarcinoma though potentially fatal has a better prognosis than previously reported (12). Important histological prognostic factors include mitoses, lymphovascular invasion, and tumor depth (3).

The absence of any large clinical series makes it impossible to determine the correct excision margins for the tumour and also makes it difficult to determine if any adjuvant therapy would be beneficial to the final outcome. The propensity for local recurrence and metastasis does call for close

surveillance in the post operative period.

The case was discussed in the multidisciplinary team meeting and it was agreed that a 1cm margin around the tumor with excision of palmar fascia as the deep margin and histopathological examination of excised tissue to exclude any residual tumor should be considered as a safe option.

Our patient had a history of a swelling of long duration and the diagnosis was made only on histology.

Immunohistochemical studies namely p53 protein expression study, expression of angiotensin type 1 receptors and expression of CEA, if possible should be done to confirm the diagnosis.

The prolonged history did put us on the cautious consider if the tumor had already metastasized but clinically there was no evidence to suggest any metastatic disease. The suggestion of malignant transformation in a benign cyst could mean that the tumor was not malignant to begin with. (Orella et al. [4]) suggest that as many patients had a long history before diagnosis, maybe this lesion arose in a previously benign eccrine poroma).

CORRESPONDENCE TO

Rahul Singh Raj Nursing Home 23 A Park Road Allahabad India 211001 0091 9451839940 E-mail: singhrahul1975@gmail.com

References

1. Pinkus H, Rogin JR, Goldman P. Tumour exhibiting the features of the epidermal sweat duct unit. *Arch Dermatol*, 1956; 74:511-21.
2. Pinkus H, Mehregan AH. Epidermotropic eccrine carcinoma: a case combining features of eccrine poroma and Paget's dermatosis. *Arch Dermatol* 1963; 88:597-607.
3. Robson A, Greene J, Ansari N, Kim B, Seed PT, McKee PH, Calonje E. Eccrine porocarcinoma (Malignant Eccrine Poroma), A clinicopathological study of 69 cases. *Am J Surg Pathol*, 2001; 25(6): 710-720
4. Orella JAL, Penalba AV, San Juan CC, Nadal RV, Morondo JC, Alvarez TT. Eccrine porocarcinoma- report of nine cases. *Dermatol Surg*, 1997; 23:925-28.
5. Rana Roshani E, Verma Sachin Etal. Sweat gland tumor (eccrine porocarcinoma) of scalp : a rare tumor. *Indian journal of plastic surgery* 2005 vol 38 issue 1 pg 51-53
6. Maeda T, Mori H, Matsuo T Etal. Malignant eccrine porocarcinoma with multiple visceral metastasis : report of a case with autopsy findings. *J Clinical Pathology* 1996 ; 53 : 566 - 70
7. A G Affleck, J L Bong etal. Eccrine porocarcinoma. *Dermatology online journal* 12(1) : 17
8. Elder D, Elenitsas R, Ragsdale BD. Tumors of the epidermal appendages. In: Elder D, Elenitsas R, Jaworsky C,

Johnson B Jr, editors. Lever's Histopathology of skin. 8th ed. Lippincott-Raven: Philadelphia; 1997. p. 747-803

9. Oudit D, Ellabban M, Vuppapapati G, Stringfellow H, Korashi A. Porocarcinoma? Plast Reconstr Surg 2004;113:2216-7

10. Arslan E, Tatar C, Aksy A, Tutuner N. Denovo malignant eccrine poroma of the nose: A review of the midface as a location. Plast Reconstr Surg 2004;113:2227-9

11. Dasilva MF, Terek R, Weiss AP. Malignant eccrine

poroma of the hand. A case report. J Hand Surg 1997;22:511-4

12. Perna C, Cuevas J, Jimenez-Heffernan JA et al. Eccrine porocarcinoma (malignant eccrine poroma). Am J Surg Path 2002; 26: 272-4.

13. Kacker A, Shaha AR. Ductal eccrine carcinoma arising in the postaural area. Ear Nose Throat J. 1999 Aug;78(8):576-7.

Author Information

R. Singh

Senior House Officer Plastic Surgery, Department of Plastic surgery, Pinderfields General Hospital

S. Majumder

Consultant Plastic and Hand Surgeon, Department of Plastic surgery, Pinderfields General Hospital