Available online at http://www.journalcra.com

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

International Journal of Current Research
Vol. 7, Issue, 09, pp.20178-20180, September, 2015

ISSN: 0975-833X

CASE STUDY

A RARE CASE OF MARJOLIN'S ULCER OF LOWER ABDOMINAL WALL

***Dr. R. Alagar Samy**

ESIC Medical College and Hospital, Coimbatore, Tamilnadu, India

ARTICLE INFO

Article History:
Received 04th June, 2015
Received in revised form
08th July, 2015
Accepted 20th August, 2015
Published online 16th September, 2015

Key words:
Marjolins,
Ulcer,
Growth,
Scar.

ABSTRACT

Marjolin's ulcer is defined as a malignant, ulcerating neoplasm occurring in cicatricial tissue, and is thought to be more aggressive than the other more common varieties of skin cancers. Butterworths Medical Dictionary (MacNalty, 1965) now defines Marjolin's ulcer as any cancer arising in association with a chronic sinus, ulcer or scar. Cases of squamous cell carcinoma arising in the abdominal wall from a scar (non burn scar) are extremely rare (Fleming *et al*., 1990). Was conducted a literature review and was found two case report, this being the third report in the literature (Franke and Chung, 2010; García *et al*., 2006). A 40 years old female admitted with complaints of an ulceoproliferative growth of left lower abdominal wall of two months duration. The ulcer was a non traumatic and non burn type. On examination there was a 4x3 cms ulcer proliferative growth of left lower abdominal wall with everted edges, indurated base and floor covered with necrotic tissue with bleeding on touch. On biochemical investigation and imaging found to be normal. We did the wide local excision with 2 cms margin clearance in 3 dimensional aspect. The post op periods were uneventful with the HPE report of well differentiated squamous cell carcinoma. The patient is on follow up. it is being presented for its rarity.

Citation: Alagar Samy, R. 2015. "A rare case of Marjolin's ulcer of lower abdominal wall", *International Journal of Current Research*, 7, (9), 20178-20180.

INTRODUCTION

Abnormal wound healing can lead to malignant transformation. Squamous cell carcinoma arising from a chronic nonhealing wound is called Marjolin's ulcer, and this process is mostly associated with burn wounds. Marjolin's ulcer, as opposed to spontaneous skin cancer, is more likely to occur in the extremities, and has a highly aggressive pattern, with 27.5 percent of patients developing metastasis (Kerr-Valentic *et al*., 2009). The last step of the pathological healing process is the malignant transformation.

CASE REPORT

A forty years old female presented with complaints of an ulceroproliferative growth of left lower abdominal wall for two months duration. There was associated pain on and off for ten days. The wound was started as a small blister got spontaneous ruptured later on becoming ulcer. She had treatment in the form of cleaning and dressing and drugs. Despite of two months treatment from nearby doctor the wound failed to heal rather developed like the present one. There was no history of co morbid illness or surgery in the past. On local examination there was single, 4x3 cms, irregular shaped ulceroproliferative growth situated in the left lower abdominal wall. The margin was irregular with indurated base and the ulcer was bleeds on touch. The floor was covered by necrotic tissue. No regional or generalised lymphadenopathy. Other systems were normal. The biochemical investigations were normal. Chest x ray PA view and ultrasonogram of abdomen and pelvis were normal. Since it was small lesion we did wide local excision with three dimensional two cms clearance with primary closure. The post operative periods were uneventful and on regular follow up. The histopathology report came as well differentiated sqamous cell carcinoma with negative margin of three dimensional aspect. The medical oncologist opinion obtained and advised to follow up.

DISCUSSION

Marjolin's ulcer is defined as a malignant, ulcerating neoplasm occurring in cicatricial tissue, and is thought to be more aggressive than the other more common varieties of skin cancers. The association between thermal burn scars and neoplasia was initially recognized by Celsus in AD 100 (Treves and Pack, 1930). Jean Nicolas Marjolin, writing in 1828, is widely credited with the first description of tumour arising in bum scars (Marjolin, 1828). It was De Costa (De Costa, 1903) in 1903 who first coined the term "Marjolins's ulcer", applying it to tumours arising in simple leg ulcers.

**Corresponding author: Dr. R. Alagar Samy,*
ESIC Medical College and Hospital, Coimbatore, Tamilnadu, India.

Fig 1.1. The ulceroproliferative growth of left lower abdominal wall

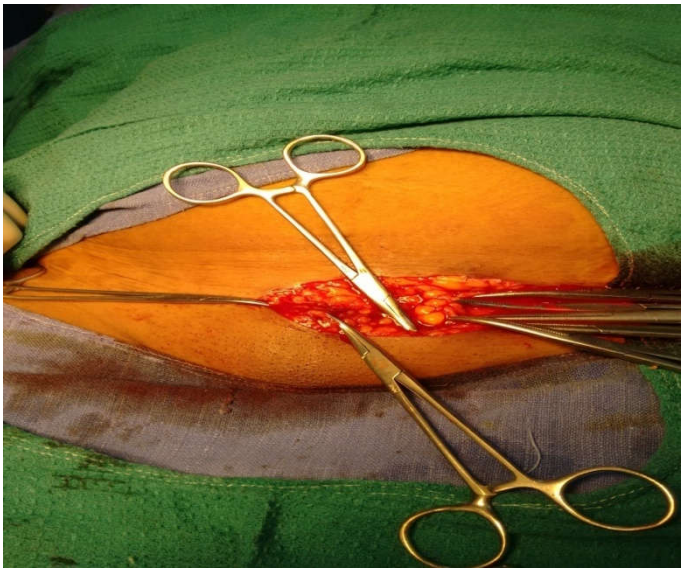

Fig 1.2. Intaoperative image after excision the growth

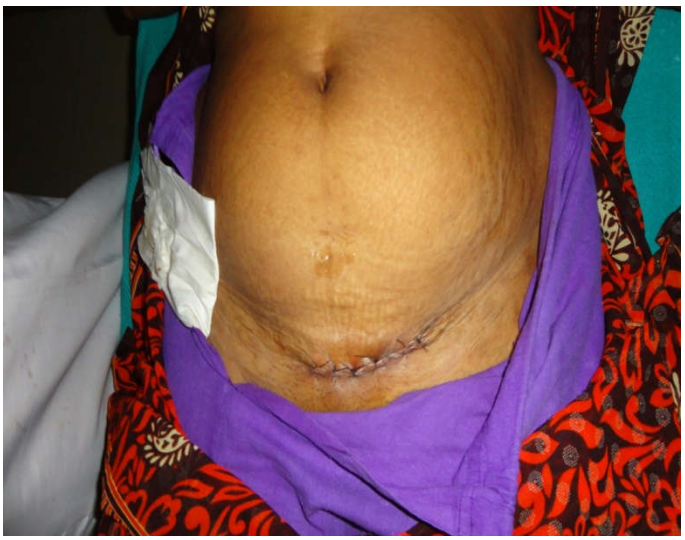

Fig 1.3. The postoperative wound status

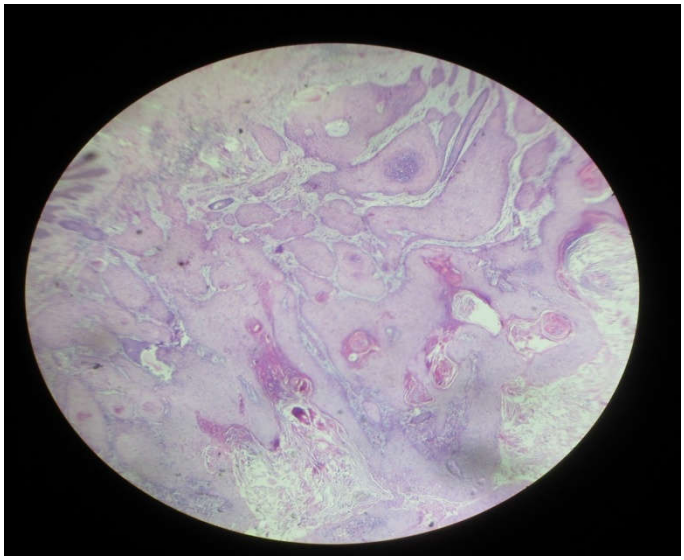

Fig 1.4. The well differentiated sqaumous cell carcinoma

Although Steffen (1984) and Nancarrow (1983) have pointed out that Marjolin probably did not recognize the malignant nature of these ulcers, most other authors have all iden'tified the malignancy found in burn scars such as Marjolin's ulcer (Pandey *et al*., 2009). Today the term "Marjolin's ulcer" is used to describe malignant turnours arising in many different types of cutaneous scars and chronic wounds, such as bum scars, chronic venous ulcers, pressure ulcers (decubitus ulcers), osteomyelitis sinuses, urinary fistulas, pilonidal sinuses, gummata, smallpox vaccination scars and radiation scars (Abbas and Beecham, 1988; Barr and Menard, 1983; Berkwits *et al*., 1986; Fishman and Parker, 1991; Nancarrow, 1983; Steffen, 1984). Butterworths Medical Dictionary (MacNalty, 1965) (Aarons *et al*., 1965; Abbas and Beecham, 1988; Ames and Hickey, 1980; Aarons *et al*., 1966) now defines Marjolin's ulcer as any cancer arising in association with a chronic sinus, ulcer or scar. Treves and Pack (1930) (Barr *et al*., 1983) suggested that decreased vascularity and a weakened epithelium are unable to withstand the effects of carcinogens, which may be found in the burn wound (non burn also). Menkin (1960) (Berkwits *et al*., 1986) studied the role of inflammation and proposed that, in genetically susceptible persons, exudates produced by endogenous growth-promoting factors can act as co-carcinogens. Engler *et al*. (1964) (Bostwick *et al*., 1976) also believed that infection may serve as a co-carcinogen with scar tissue or "sensitized epithelium". Kennaway (1930) (Castillo, 1968) found that burned and non burned human skin produced a tarlike distillate possessing carcinogenic potential. The average latency period of Marjolin´s ulcer is very wide, it can vary greatly, and it is described as inversely proportional to the patient's age at the time of injury. Several histologic types have been described, such as sarcoma, basal cell carcinoma and the squamous cell carcinoma (Kerr-Valentic *et al*., 2009).

The prevalence of metastasis to regional lymph nodes at the time of diagnosis is the most important prognostic indicator[15]. The most common metastasis sites are bone, lung, liver, kidney and brain. Lower extremities have the highest metastasis rates and thus the lowest survival rates (García *et al*., 2006) Patients usually present complaining of increased, often foul-smelling

putrid discharge or bleeding, pain, and a fast growing lesion from a chronic nonhealing wound or scar, with granulation tissue. The diagnosis is based on the pathologic interpretation of biopsy specimens, and it can be delayed by confounding characteristics of benign and malignant ulcers. Marjolin's ulcer seems to affect mostly disadvantaged patients with limited access to health care and neglected wounds, which often delays presentation, especially in developing countries (De Costa, 1903). Wide excision is recommended (Clairmont *et al*., 1979 with large safety margins (2 to 3 cm) and closures of chronic skin wounds, and when this is not feasible, close evaluation. Lymph node excision should be done when nodes are palpable, and some authors have advocated the use of sentinel lymph node biopsy. Sentinel lymph node evaluation has not yet proved useful in patients with squamous cell carcinoma.

Conclusion

Cases of squamous cell carcinoma arising in the abdominal wall from an ulcer (non burn scar) are extremely rare. Was conducted a literature review and was found only two cases report, this being the third report in the literature. We presented this case for its rarity.

Source of Support: Nil

Conflict of Interest: Nil

REFERENCES

Aarons M.S., Lynch J.B., Lewis S.R. *et al*. Scar tissue carcinoma. A clinical study with special references to burn scar carcinoma. *Ann. Surg*., 161: 170-188, 1965.

Aarons M.S., Rodin A.E., Lynch J.B., Lewis S.R., Blocker T.G.: Scar tissue carcinoma. Part 11. An experimental study with special reference to burn scar carcinoma. *Ann. Surg*., 163: 445-460, 1966.

Abbas J.S., Beecham J.E. Burn wound carcinoma: case report and review of the literature. *Burns*, 14: 222-224, 1988.

Ames F.C., Hickey R.C.: Squamous cell carcinoma of the skin of the extremities. *Int. Adv. Surg. Oncol*., 3: 179-199, 1980.

Barr L.H., Menard J.W.: Marjolin ulcer: the LSU experience. *Cancer*, 52: 173-175, 1983.

Berkwits L., Yarkony G.M., Lewis V. Marjolin ulcer complicating pressure ulcer: case report and literature review. *Arch. Phys. Med. Rehabil*., 67: 831-833, 1986.

Bostwick J., Prendergast W.J., Vasconez L.O.: Marjolin's ulcer - an immunologically privileged turnour? Plast. *Reconstr. Surg*., 57: 66-69, 1976.

Castillo J., Goldsmith H.S.: Burn scar carcinoma. *Cancer J. Clin.,* 18: 140-142, 1968.

Castillo J.L., Goldsmith H.S.: Burn scar malignancy in a possibly depressed immunologic setting. *Surg. Foruml* 19: 511-513, 1968.

Clairmont A.A., Hanna D.C., Gaisford J.C., Richardson G.S. Marjolin's ulcer. *Pa. Med*., May: 3 1-33, 1979.

De Costa J.C.: Carcinomatous changes in an area of chronic, ulceration, or Marjolin's ulcer. *Ann. Surg*., 37: 496-502, 1903

Fleming MD, Hunt JL, Purdue GF, Sandstad J. Marjolin's ulcer: a review and reevaluation of a difficult problem. *J Burn Care Rehabil*., 1990 Sep-Oct;11(5):460-9.

Franke M, Chung HD, Johnson FE.Squamous cell carcinoma arising from the pleura after pneumonectomy for squamous cell carcinoma of the lung. *Am J Surg*., 2010 Apr;199(4):e34-5.

García PY, Campos PV, Rubio JMM, García AG, Viejo EP, Pisonero DG, Pueyo JIM, Vigo FC. Marjolin's Ulcer Arising From a Laparostomy Scar. *Int Surg*., 2006;91:207-210.

Kerr-Valentic MA, Samimi K, Rohlen BH, Agarwal JP, Rockwell WB. Marjolin's Ulcer: Modern Analysis of an Ancient Problem. *Plast. Reconstr. Surg*., 123: 184, 2009.

Pandey M, Kumar P, Khanna AK.Marjolin's ulcer associated with chronic osteomyelitis. *J Wound Care*, 2009 Dec;18(12):504-6.

Treves N,, Pack G.T.: The development of cancer in bum scars. *Surg. Gynecol. Obstet*., 51: 749-782, 1930.

Steffen C.: Marjolin's ulcer. *Am. J. Dermatopathol*., 6: 187-193, 1984.

Nancarrow J.D. Cicatricial cancer in the south-west of England: a Regional Plastic Surgery Unit's experience over a 20-year period. *Br. J. Surg*., 70: 205-208, 1983.

Marjolin J.N.: Ulc~re. In: Adelon N.P. (Ed.): "Dictionnaire de m6dicine", Vol. 21, 31-50, Bechet, Paris, 1828.

Engler H.S., Fernandez A., Bliven F.E., Moretz W.H.: Cancer arising in scars of old bums and in chronic osteomyelitis, ulcers, and drainage sites. *Surgery*, 55: 654-671, 1964.

****