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# Infected epidermal inclusion cyst mimicking Marjolin's ulcer in a case of Post Burn Contracture axilla

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## Abstract

**Background:** We describe here a very rare presentation of Post Burn Contracture axilla in which an underlying infected epidermal inclusion cyst was mimicking Marjolin's ulcer in its presentation. **Material and Methods:** The patient with Post Burn contracture axilla was treated with release and split skin grafting after excision of the epidermal inclusion cyst. **Results:** Axilla was released and grafted. Patient was kept on strict splintage and physiotherapy programme to encourage movements. The patient is on regular follow-up and further monitored physiotherapy has been planned to provide a better functional and aesthetic limb. **Conclusion:** The presentation of Post Burn Contracture axilla described here has not been mentioned in world literature so far and its presentation is a matter of discussion. Opinions regarding possibilities of such presentation are invited from experts in the field.

## INTRODUCTION

We describe here a case of Post burn contracture axilla with an underlying infected epidermal inclusion cyst which was mimicking Marjolin's ulcer in its presentation. Axilla was released and epidermal inclusion cyst was excised. Patient also had a long standing anterior dislocation of the shoulder which was treated by an open approach in the same sitting. No case of this kind has been reported to date.

abduction and limited flexion and extension. Movements at the elbow, wrist and joints in the hands were normal.

Clinically, the ulcer presented the picture of Marjolin's ulcer with a history of non healing since past 6 years in long standing Post burn contracture axilla, everted edges and indurated base.

## CASE REPORT

A sixty two year-old adult male presented with a Post burn contracture of the left axilla since past 42 years. Patient had developed a non healing ulcer over the contracture site since past 6 years. Clinical examination revealed that the non healing ulcer had everted edges and an indurated base. The ulcer was present on the area adjoining the anterior axillary fold. The cupola was obliterated. The ulcer was 3.2 X 2.4 cm in size. [Fig 1] The axilla had a long standing Post burn contracture with obliteration of cupola. The skin overlying the contracture was hyperpigmented and atrophic. No lymph nodes were palpable in the supraclavicular region. Palpation of axillary nodes was not possible in view of the contracture band. The movements at the axilla was limited to slight

**Figure 1**

Fig 1 Showing Long standing axilla contracture with ulcer



**INVESTIGATIONS**

An X-ray was taken of the left shoulder region which suggested anterior dislocation of the shoulder.

Wedge biopsy of the ulcer was done which was suggestive of benign pathology but malignancy could not be ruled out with certainty.

Blood investigations were done to rule out other causes of non healing ulcer including Diabetes Mellitus, Immunocompromised state and other systemic disorders.

**PLANNING AND OPERATIVE PROCEDURE**

Our goal was to release the axilla by doing a wide local excision of the ulcer region and cover the defect by a split thickness skin graft. A post operative biopsy of the excised tissue was planned to confirm the diagnosis. The anterior dislocation of the shoulder was planned to be reduced in the same operative sitting by an open approach.

**OPERATIVE PROCEDURE**

An elliptical incision was made including 2 cm margin from the non-healing ulcer. The incision was deepened and the underlying cyst was seen immediately beneath the ulcer.

A cystic lesion was found immediately underlying the ulcer. The cyst along with surrounding tissue was excised. After excision the cyst was cut open and presence of sebum was confirmed inside the cyst.[Fig 2]

The resulting defect was grafted after harvesting split thickness graft from the left thigh. The anterior dislocation of the shoulder was reduced by delto-pectoral approach. Hand was splinted in adduction owing to the dislocated shoulder. Post operatively antibiotic cover was given for 3 days.

The postoperative period was uneventful with good take of the graft. Postoperative histopathology was suggestive of epidermal inclusion cyst.

Physiotherapy and re-education in terms of shoulder movements has been delayed for the shoulder dislocation to settle down. The patient has been kept on regular follow-up and further monitored physiotherapy has been planned.

**Figure 2**

Fig 2 Showing the cut open ulcer with underlying sebaceous cyst



**DISCUSSION**

The malignant potential of burn scars has been recognized

since Marjolin's classical description of cancer arising in several types of post-traumatic scars. Malignant degeneration of chronic wounds is well documented.<sup>1,2</sup> It was first described by Marjolin in 1828.<sup>3</sup> Non healing ulcers in a long standing burn scar thus has a high index of suspicion for malignancy. However, long standing scars with frequent episodes of ulcer breakdown and subsequent infection is possible differential diagnosis.

The younger the patient is at the time of the burn, the longer it takes for cancer to develop. It may take 40 or 50 years after burns in childhood.<sup>4</sup> The cause of malignant change in burn scars is not known. There are several theories of development of malignant changes in cicatricial contracture,<sup>5</sup> where there is continuous stress and strain with frequent and persistent breakdowns. However, the axilla is a rare site for development of marjolin ulcer.<sup>6</sup>

The case thus had a high index of suspicion for malignancy. Inflammatory pathologies including epidermal inclusion cyst are a common occurrence in axilla. Not all chronic ulcers in patients of long standing cicatricial contractures are those

of malignant origin. Certain epidermal cysts are known to mimic malignancies at various sites.<sup>7</sup> No cases of epidermal inclusion cyst mimicking malignancy in axilla has been reported till date. The case reported is a very rare presentation of a common condition.

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