
: , 가 가
 : 1993 8 2002 9 가 ,
 36 가 20
 57.2 , 16 4 . TMN Stage
 : 48.3 (36~84) 6 (30%) 가 .
 가 3 , 가 3 가 3 , 가 1
 18 5 50% 3
 11 (4~18)
 가 2 가 1.9
 1.3
 :
 : , , , marjolin ulcer,

1828 Marjolin
 . 1990
 10~15 ,
 . 1977 Percivall pott 10 38.8
 가 .

가

가 3.11)

Marjolin's ulcer 3.6%

Marjolin's ulcer 57.2 (45~68) 16
(80%) 4 (20%)

21~30% 1,3,8,12,16)

가 12 8 가
가 가 4 ,
가 가

가 4 , 3 , , 가
2 , 1 .
5 10 , 2 ,
가 1
5
28.9 (7~50)

1993 8 2002 9
가 , 36
가 20

(Fig. 1).
TMN



Fig. 1. (A) A 39 years-old male showed squamous cell carcinoma on ankle with 25 year latent period after burn injury. (B) A 58 years-old male showed squamous cell carcinoma on tibia with 24 year latent period after osteomyelitis.

11 1 (9%), moderately differentiated
 6 4 (67%), poorly differentiated 3
 가 1 (33%) 가 .
 . TMN stage Stage I 2 , 9.66
 Stage II가 1 , Stage III 15 , Stage IV가 2 (3~18) .
 가 5 1 ,
 17 . Chi-Square test
 2 20 5 50% .
 well differentiat- 3 (15%)가 . 2
 ed 11 , moderately differentiated 6 가
 , poorly differentiated 3 . 가 1 .
 1 ,
 2
 . 3 1 , 2
 48.3 (36~84) .
 6 (30%) 가 . 11 (4~18) .
 가 3 (15%), 가 3 (15%) . 20 가 11 ,
 가 3 , 가 1 . 9 .
 1 가 4 , 가 7
 2 (Fig. 2, 3, 4, 5). 7 가 3
 well differentiation , 4

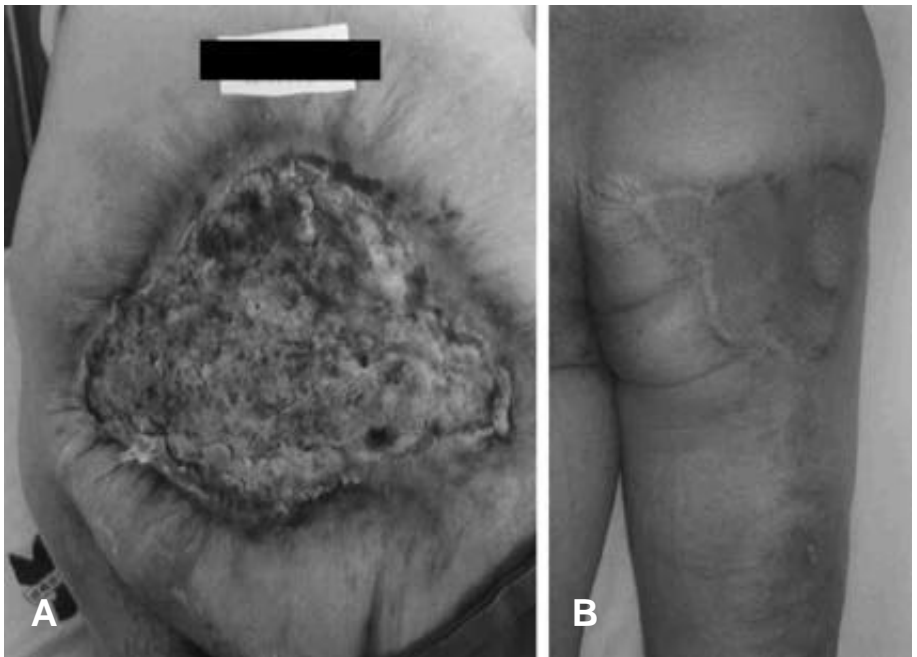


Fig. 2. (A) A 64 years old male with 50 years latent period after burn injury. (B) Photograph after wide excision and skin graft.

1.9

1.3

(Mann-Whitney test $P=0.059$).



Fig. 3. (A) A 56 years old male with 48 years latent period after burn injury. (B) Photograph after wide excision and gastrocnemius muscle flap.

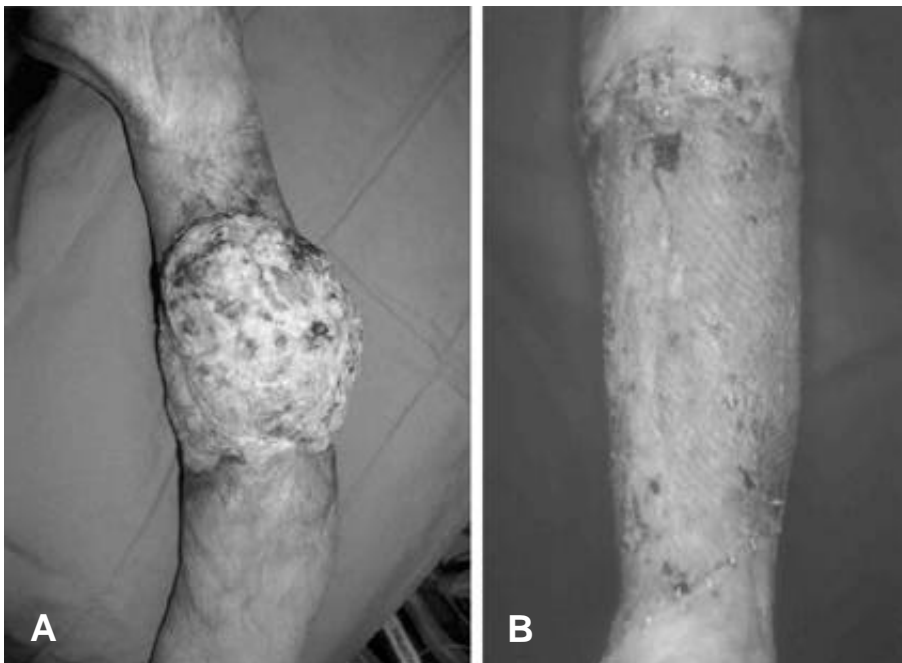


Fig. 4. (A) A 59 years old male with 40 years latent period after burn injury. (B) Photograph after wide excision and skin graft.

stage
가
(Fisher's Exact test P=0.474 1.00)
가

가
가

(Spearmon test P=0.925).

가 2 가 , 가

15). Aron 2)
trauma
co-carcinogen
가

가

Hobart Miller⁹⁾
1.5% , Treves
Pack¹⁸⁾ 2%

가 5). 가 가

3.6% ,
21 ~ 30%

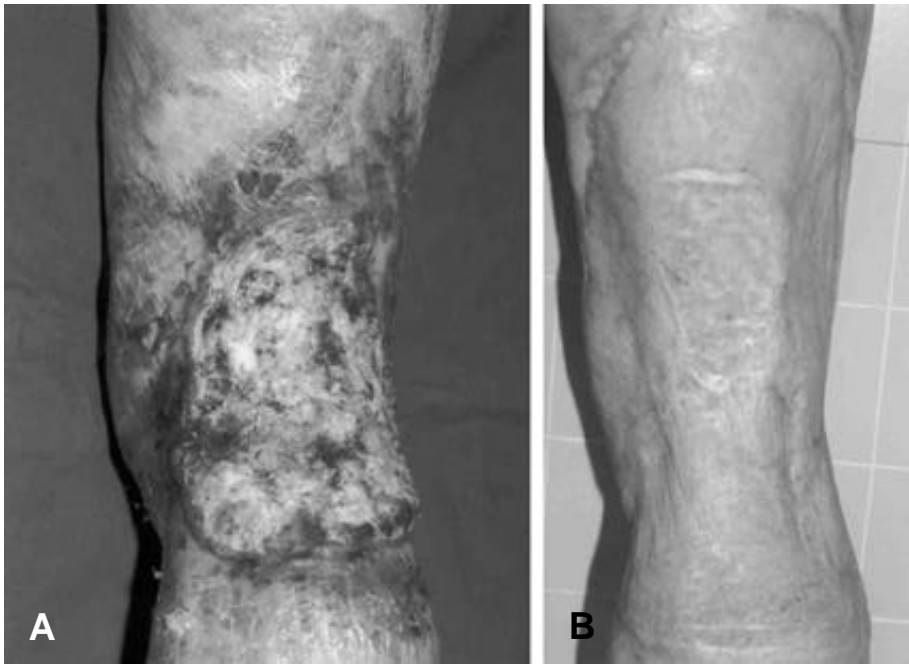


Fig. 5. (A) A 45 years old male with 30 years latent period after burn injury. (B) Photograph after wide excision and skin graft.

3,12) 3 selection bias
 30%, 15%
 Crawley 4)
 가 1.9 1.3 (P=0.059).
 가
 가 4 가
 가
 가 3 2
 Marjolin ulcer 52%가 , 26%가
 Sirsat Shirkhande 7)
 가
 가 7:2 Lifeso 14)
 well differentiated
 10%, moderately differentiated 59%,
 poorly differentiated 86%
 가
 가 13) 7 60 Rowe well
 , Edwards differentiated poorly differenti-
 ated 6.0% 16.4%
 Jeon 6) 8 ,
 10) 21 가
 가 28.9 (7 ~ 50)
 well differen-
 tiated 9%, moderately differen-
 tiated 67% Lifeso 14)
 poorly differentiated
 가
 가 3 1 가
 가
 가
 가
 가
 가
 가 7,10)
 11 9 3 (27%) 3 (33%)

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Treatment of Squamous Cell Carcinoma in Extremity

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Purpose: to know the treatment result of squamous cell carcinoma in extremity had poor prognosis with risk factor including burn scar and chronic osteomyelitis.

Material and Methods: Between October 1993 and September 2002, 20 patients with squamous cell carcinoma in extremity had no distant metastasis was got operation and followed over 36 months. Amputation was done when it was hard to get enough wide margin or neurovascular structure was involved instead of wide excision. Mean age of patients was 57.2 years old and male to female was 16 to 4. TMN staging and histologic grading were performed.

Results: There were 6 metastasis (30%) in 20 cases for mean 48.3 months (36-84 months). 3 metastasis to local lymph node and 3 distant metastasis were happened at lung (in 3 cases) and thoracic vertebra (in 1 case). Survival was 18 cases at last look. 5-year survival rate was 50%. 3 local recurrence was developed at average 11 months (4-18 months). Complication was focal skin defect after wide excision and skin graft in 2 cases. The patients by wide excision got average 1.9 time operation and by amputation got average 1.3 time.

Conclusion: Squamous cell carcinoma at extremity in Korea had high metastasis rate due to burn scar and chronic osteomyelitis, and it showed equal treatment result which treated by wide excision compared with amputation.

Key Words: Squamous cell carcinoma, Burn, Osteomyelitis, Marjolin ulcer, Wide excision,

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