

P27 Safe and efficacy of not-windowed fiberglass off-loading cast in the treatment of diabetic neuropathic plantar ulcer of the foot: observational clinical trial in a large cohort of patients.

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Introduction: many authors have demonstrated in last few years that the off-loading cast should be considered the treatment of choice of neuropathic plantar ulcer. Many papers underlined the opportunity to open a window on the side of the ulcer in order to allow inspection and periodical dressing of the lesions. Considering the risk of window oedema on the edge of the ulcer that can interfere with the healing process we have decided to change from windowed cast, as previously published, to unwindowed off-loading cast.

Material and method: in the period from January 2004 to December 2004 we have consecutively enrolled 114 patients suffering from non infected non ischaemic neuropathic plantar ulcers. The distribution of the side of the plantar ulcer was:

n. pts	Side
15	1 st mtt
1	2 nd mtt
10	3 rd mtt
3	4 th mtt
11	5 th mtt
3	1 st toe
1	4 th toe
11	Forefoot
17	Midfoot
9	Heel
9	Transmtt stump
5	Lisfranc stump
18	Chopart stump

The characteristics of the study population was:

- Type 1 DM 7 Type 2 DM 107
- Insulin 79 OA 35
- M 89 F 25
- Mean Age 61±10
- Mean duration of DM 16±8.7
- Mean Wound area: 3,5±1cm²
- TcPO₂ > 40 mmHg

The unwindowed off-loading was constructed employing two different kind of fibreglass bandages of different rigidity, as shown in a previous paper. A aluminium stirrup or rubber rocker heel was applied on the plantar surface of the cast to allow the walking. Every 12 days the cast was substituted and the dressing (mesh of ialuronic acid and poliuretane foam) was changed after rinsing of the ulcer with sterile saline solution.

Results: we have obtained in 72 out of 113 patients (64%) the complete healing of the ulcer in a mean time of 59±32 days of treatment. The table 2 shows the different rate of healing considering different side of plantar ulcers:

SIDE	Ulcers treated	Ulcers treated	%
1 st mtt	15	12	80
2 nd mtt	1	1	100
3 rd mtt	10	8	80
4 th mtt	3	2	66
5 th mtt	11	10	90
1 st toe	3	2	66
4 th toe	1	1	100
Forefoot	11	5	45
Midfoot	17	13	76
Heel	9	4	44
Transmtt stump	9	5	55
Lisfranc stump	5	2	40
Chopart stump	18	10	55

Results: data from our observational study confirm what previously demonstrated that fibreglass off-loading cast is a safe and efficacy treatment for neuropathic plantar ulcers. Moreover the study underline that the lack of plantar window doesn't create any side effects taking care to treat only non infected and non ischaemic ulcers. It is interesting to note that off-loading cast is useful in the treatment of ulcer recurrence of post surgical stump (Transmtt, Lisfranc and Chopart). study should compare the safety and effectiveness of windowed cast versus unwindowed cast.