

## USE OF SKIN GRAFT “PUNCH GRAFT” TYPE FOR THE HEALING OF LEG ULCERS IN TREATED HANSEN’S DISEASE PATIENTS

**Thesis:** Carla Christiane de Oliveira Cardia submitted this dissertation for her Masters in Tropical Diseases at Botucatu School of Medicine, São Paulo State University, UNESP, Botucatu, São Paulo, Brazil, 2006.

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**ABSTRACT:** Hansen’s disease is an infectious illness caused by *Mycobacterium leprae*. It affects preferentially the skin and the peripheral nervous system leading to incapacities, such as leg ulcers, which happens due to the direct action of the bacillus on the organs or its indirect action on the peripheral nervous system. Leg ulcers can occur by two physiopathologic processes. There are many treatments for general leg ulcers, which include the ones caused by Hansen’s disease sequels. Among them, surgical treatment shows to be effective when using skin graft, which can be performed by several techniques. Considering the low number of techniques known for treating leg ulcers in Hansen’s disease sequels, the aims of this work were to standardize alternative techniques, to detect the main bacteria found in ulcer secretion cultures, to analyze the patients profile and the ulcers, to describe the histopathologies found, and to correlate these data with those of literature from all over the world. Skin graft “punch type” was carried out and analyzed; males had a mean age of 59.4 years old and females, 54.2 years old. Patients were 73.6% male and 26.3% female. Lepromatous type was present in 89.4% patients and tuberculoid type was seen in 10.5% of them. Associated systemic diseases were observed in 26.3% patients. Mean time of ulcers evolution was 11.6 years in male and 12.8 years in women. The average diameter of ulcers in the pre-treatment period was 8.5 X 9.5 cm in male and 10.2 X 6.8 cm in women. After the graft, their average diameters were 3.2 X 2.7 cm in male and 5.1 X 5.6 cm in women. Statistical analysis showed that there was no significant correlation between the ulcer diameter and its reduction or not in the post-surgery period ( $p=0.269732$ ). The mean age of patients whose

ulcers diameter did not change or reduced by only 20% was 63.5 years. Using the Spearman's coefficient, it was possible to observe that there was no significant correlation between the patients' age and the ulcers diameter reduction after the skin graft ( $p=0.222531$ ). Evolution time of ulcers that did not present any satisfactory result in the post-surgery period was 12.1 years. The Spearman's coefficient showed that there was no significant correlation between the ulcers evolution time and the ulcers diameter reduction in the post-surgery period ( $p=0.191655$ ). Cultures presented 50% of cases with *Pseudomonas aeruginosa*. Statistical analysis showed there is no correlation between the bacterial types found and the ulcer evolution in the post-surgery period ( $p=0.697531$ ). The average of the ulcers diameter reduction was 42.4%, and in 26.3% of the patients the lesions disappeared after the skin graft.

**KEY WORDS:** Hansen, leg ulcers, punch graft.

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