

VENOUS ULCERS TREATED WITH COLLAGEN MEMBRANES

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SUMMARY

The purpose of this report is to present the results obtained by the treatment of venous ulcers with a temporary collagen membrane dressing. One or two collagen membranes were applied to the lesion, before the usual occlusive bandage with a previous stick soap and water hygienization followed by local anesthesia. The evolution of the lesions was evaluated by direct observation; its treatment was done by means of an antibiotic solution topically or sprinkling the membrane surface, without removing it, every five days.

The 46 patients treated with this new collagen membrane referred being relieved from their pain, showing improvement of signs and symptoms. The follow up of the patients showed a good response in 85 % of those from 40 - 60 years old; and in 75 % of the older ones. Neither rejection, nor allergic reaction or infection was never registered even in cases of slow evolution.

INTRODUCTION

The ulcers that affect the lower members, are not a sickness by themselves, rather they represent symptoms of a primary pathology. Venous incompetency affecting lower members accounts for the 90 % of cases; ischemic state is responsible for 5 % of them, and the rest 5 % depends on other origins. The next table summarizes etiology of the ulcers according to Arnold Kappert

ETIOLOGY OF THE ULCERS		
ULCERS	VASCULAR ORIGIN	VENOUS 90 %
		ARTERIAL 5 %
	OTHER ORIGINS	5 %

Skin absence involves contamination danger with worst evolution of the injury; that's why inspecific cases of varicose ulcers, burns and eschars, the temporary dressing of exposed surfaces becomes a "must". Autologous or heterologous skin, amniotic membranes of different sources and synthetic or mixed materials can be found in literature, among several materials used in these cases.

In this preliminary study, the evolution of venous ulcers treated with purified bovine collagen, presented

as sterile membranes specially designed as skin substitute, is evaluated. The treatment was applied to patients grouped according to their age : a) 40 - 60 years old, and b) older than 60. The evolution of the lesions was followed till their healing.

MATERIALS AND METHODS

1) COLLAGEN MEMBRANE: It is prepared from bovine skin extracted, purified, gelified and reconstituted as a film with different characteristics from the other available patches. Its difference lies in :

- a) its adhesivity: while covering the ulcer, protects it from outside, avoiding contamination.
- b) its transparency: the evolution of the lesions can be observed without removing the membrane.
- c) its permeability: that makes possible the exudates drainage, as well as the superficial sprinkling with the corresponding antibiotic or antiseptic.
- e) its durability: that makes no necessary the frequent remotion required by other external medicinal applications favouring a quickly healing.

2) The 46 patients that followed the whole treatment (from 52 that began it) were treated as described: strict hygienization of the ulcer with water and soap (brush). local anesthesia with Novocain powder. application of 1 or more collagen membranes, according to the size of the lesion. usual occlusive bandage treatment.

in every case sprinkling on the membrane surface with antibiotic solutions (or topically), observation and registration of results were done every 5 days. new hygienization and rechange of the Collagen membrane was done only if it were required by the observed evolution. if there were exudates below the membrane, may be necessary to punch it, since it is only permeable to low molecular weight substances.

NUMBER OF PATIENTS	AGE	SEX	EVOLUTION	
			GOOD	REG.
14	40 – 60 YEARS	M 4	3	1
		F 10	9	1
			85,7%	14,3 %
32	OLDER THAN 60 YEARS	M 12	9	3
		F 20	15	5
			75 %	25 %
TOTAL 46		M 16 F 30	78,3 %	21,7 %

RESULTS

The results obtained show that the evolution was satisfactory in a 78.8% of the 46 patients treated with the collagen membrane, while the response was fair in a 21.7 % of them. Of the group corresponding to 40 - 60 years old (14 patients), a good evolution amount to 85.7 %, with fair results in a 14.3%. Of the

group including patients older than 60 (32 patients), the response was good in a 75 % and fair in a 25 %. In this first study only qualitative data were obtained, since the lesions were not classified according to size, deepness or degree, neither there were registered the days elapsed till the injury's total healing.

CONCLUSION

The results obtained establish the collagen membrane excellent competence to improve the healing of ulcers, (their cicatrization, pain, signs and symptoms); that's why it can be considered specifically indicated in phlebology as a temporary cutaneous dressing. The forementioned results let us consider of great interest to continue its application in a broader and systematic way to confirm these significative though qualitative data.-