

BRAZILIAN EXPERIENCE WITH PHOTOTHERAPY AS FIRST CHOICE OF SECOND LINE TREATMENT FOR CUTANEOUS CHRONIC GRAFT VERSUS HOST DISEASE

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INTRODUCTION

Chronic graft-versus-host disease (cGVHD) is a systemic disease that mimics autoimmune collagen diseases (such as lichen planus, vitiligo, and scleroderma) and affects 40%-50% of allogeneic hematopoietic stem cell transplantation recipients. When skin involvement is the predominant feature of cGVHD, phototherapy with psoralen and long-wave ultraviolet radiation A (PUVA) or narrowband ultraviolet B (NBUVB) is a viable option to treat steroid-refractory/dependent disease

OBJECTIVE

The purpose of the present study was to demonstrate our results with the use of PUVA therapy and NBUVB as the first choices for second-line treatment of cutaneous chronic graft versus host disease.

METHOD

This was a retrospective, observational study conducted at National Cancer Institute in Brazil

RESULTS

Characteristics of patients

Ninety-eight patients were included in this study. Of these, 78 patients (80%) completed at least 30 sessions of phototherapy and were analyzed. Fifty-two were treated with PUVA (67%), and 26 were treated with NBUVB (33%). Twenty patients did not complete the minimum required number of 30 sessions. The median age of the adult patients (19-55 years) was 36 years and the pediatric patients (7-17 years) was 13 years in the PUVA group. The median age of the adult patients (18-58 years) was 35 years and that of the pediatric patients (2-16 years) was 6 years in the NBUVB group. We used NBUVB to treat localized morphea (five patients), vitiligo (six patients), keratosis pilaris (12 patients), pruritus (two patients), and local lichenoid lesions of cutaneous cGVHD (10 patients). Other indications for NBUVB use were children under 17 years (eight patients) and patients with oral intolerance to psoralen (three patients). PUVA therapy was used to treat extensive cutaneous lichen planus-like cGVHD manifestations (39 patients) and scleroderma (30 patients). Table 1

Treatment Response

An analysis of the adult and children patients showed that of 52 patients treated with PUVA, 34 (65%) achieved CR, 11 (21%) achieved PR with a global response of 86%, and seven (14%) had no response. (Figura 1,2,3). Immunosuppression was withdrawn in 35 (67%) patients and reduced in 11 (21%).

Of 26 patients (adults and children) treated with NBUVB, 13 (50%) achieved CR, 10 (39%) achieved PR, and 3 (12%) had no response, for a global response of 89%. Immunosuppression was withdrawn in 13 (50%) patients and reduced in 10 (39%).

Table 2



Fig.1- lichenoid cutaneous cGVHD before(A) and after(B) PUVA therapy



Fig2-keratosis pilaris before(A) and after(B) NBUVB



Figure3 - morphea cGVHD before(A) and after UVBNB(B)

Table I - Baseline Characteristics of the Study Population

PUVA		UVBNB	
Characteristics	(%)	Characteristics	(%)
Patients	(n = 52)	Patients	(n = 26)
cGVHD		cGVHD	
Lichen		Lichen	
No	3 (5.8)	No	4 (15.4)
Cutaneous	6 (11.5)	Cutaneous	10 (38.5)
Oral	10 (19.2)	Oral	4 (15.4)
Both	33 (63.5)	Both	8 (30.8)
Vitigo		Vitigo	
No	45 (86.5)	No	20 (76.9)
Yes	7 (13.5)	Yes	6 (23.1)
Scleroderma		Scleroderma	
No	22 (42.3)	No	15 (57.7)
Not hidebound	12 (23.0)	Not hidebound	5 (19.2)
Both	18 (34.6)	Both	6 (23.1)
Fasciitis		Pruritus	
No	42 (80.8)	No	24 (92.3)
Yes	10 (19.2)	Yes	2 (7.7)
		Keratosis Pilaris	
		No	14 (53.8)
		Yes	12 (46.1)

Table II - The outcomes of treatment for PUVA and NBUVB for cutaneous cGVHD

PUVA		UVBNB	
Clinical Response		Clinical Response	
No response	7	No response	3
Partial response	11	Partial response	10
Complete response	34	Complete response	13
Immunosuppression		Immunosuppression	
Sustained /Increased	6	Sustained/Increased	3
Reduced	11	Reduced	10
Withdrawn	35	Withdrawn	13

CONCLUSION

PUVA and NBUVB are direct topical therapies and should be considered for patients in whom the increase of systemic immunosuppression may lead to a high risk of infection or interfere with the graft-versus-tumor effect.

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