## A STUDY OF 100 PATIENTS OF PEMPHIGUS-EXPERIENCES OF THE TREATMENT

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Introduction: Pemphigus is a rare but formidable disease to encounter in the practice of dermatology. Because of its rarity reports on the experiences of treatment with corticosteroids on a large number of patients with at least five year follow-up are not many. We could find few such reports in the Western literature  $^{1-8}$ ,  $^{10-12}$  and none in the Indian literature. Hence we thought it was worthwhile to report our experiences on 100 cases some of whom have been followed for ten years.

Material and methods: Of the 100 cases, 69 were those of pemphigus vulgaris, 18 of pemphigus oliaceous and 13 of pemphigus seborrhoecus. The diagnosis in all the cases was confirmed by the presence of acantholytic cells. Although prednisolone was the main stay of treatment, ancillary measures, such as antibiotics, nutritional supplements and local treatments were used as required. Blood transfusions were used in several cases of pemphigus vulgaris as a supplementary measure when the general condition of the patient was not satisfactory or when corticosteroids alone were found wanting. In this paper we shall mainly assess the value of corticosteroids and blood transfusions. The results of treatment are analysed according to the clinical types of pemphigus, since we have found that the prognosis varies according to the type of the disease.

Plan of treatment and results:-pemphigus vulgaris: For proper assessment of results of treatment in this group, it is necessary to grade the disease into a severe and a moderate type. We have done this on the basis of evolution, extent of the disease and associated toxaemia. Severe cases have a rapid evolution of symptoms with the disease involving wide areas within three months and are generally associated with marked toxaemia and a feeling of apprehension, whereas cases of moderate type have a slow evolution of over three to six months with few scattered lesions which may or may not spread. Toxaemia and apprehensive feeling in the latter patients are generally absent.

Results are summarized in Table No. 1. Out of 69 cases of pemphigus vulgaris, 28 were of the severe variety and 41 of the moderate type.

12 patients in the severe group were given only 30 mg. of prednisolone per day in our early trials, which is less than the dose we preferred because of the high cost of the drug prevailing then. The remaining 16 patients of this group were given an initial dose of 60-160 mg. of prednisolone per day.

Forty-one patients with moderate severity were given an initial dose of 30-60 mg per day.

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Results: 12 patients of the severe variety, who were given 30 mg. of prednisolone per day, succumbed to the disease. When the initial dose was 60-160 mg. of prednisolone per day in the remaining 16 cases, there were 9 survivals. The 7 patients who died had come to us with fulminating relapses because of sudden stoppage of treatment by the patients at home after taking maintenance doses for sometime. Even massive therapy with 120-180 mg. of prednisolone per day in these relapses was not enough to regain control of the disease, giving us an impression that sudden stoppage of maintenance therapy in a stabilised patient had an adverse effect on the prognosis.

In the group of patients with moderate disease, we found that an initial dose of 30-60 mg of prednisolone per day was adequate to bring about the control. Thirtysix of the 41 patients treated on this schedule are alive. Two of these are asymptomatic and require no corticosteroid to date.

Although the maintenance dose was found to vary from 10-30 mg, in both the groups, it is our impression that doses less than 20 mg, per day have not proved satisfactory. Hence it is our current practice to maintain the latter dose as long as the disease has not gone into a natural remission. Maintenance treatment is particularly necessary in all the cases who had smouldering oral lesions.

Pemphigus Foliaceous: Pemphigus foliaceous was found to be of lesser severity than pemphigus vulgaris. We feel that only local therapy with 2% iodochlorhydroxyquinoline in calamine lotion or liniment is a helpful procedure in patients presenting with the more localised forms of the disease. In the generalised form of this disease, we were forced to resort to corticosteroids in addition to the local treatment. The initial controlling dose varied from 20-90 mg. of prednisolone per day depending on the severity of the disease until the patient was stabilised in seborrhoeic phase, when the drug was gradually with-drawn.

Out of the 18 patients with pemphigus follaceous, 2 were given local therapy only (Table No. 2). The remaining 16 patients were given prednisolone in the dose of 20-90 mg per day.

Results: These are brought out in Table No. 2 Two patients who were given local therapy only, could be maintained in a stabilised form for considerable time. One is still alive.

Of the patients on steroids 9 were given 20-40 mg. of prednisolone per day as an initial dose. 4 out of them died while 5 are alive. Of the latter, 2 are stabilised in the seborrhaeic phase and are on local therapy only while 3 are symptom free with one still requiring steroids in small doses

The remaining 7 patients had generalised disease with toxic state showing high pulse rate with fever and they required 80-90 mg. of prednisolone per day. The lesions regressed completely after treatment in all of them. While one died of a cause unrelated to pemphigus or the treatment, 6 are still alive. Of these three require no maintenance dose.

Pemphigus Seborrhoecus. Our plan was to control pemphigus seborrhoecus with local therapy unless they regressed to the more generalised and severe form of pemphigus foliaceus, when corticosteroids were necessary to stabilise them again in the seborrhoeic phase. Once this was achieved, the steroids were gradually withdrawn and the patients maintained on the local therapy only. The dose of steroids used varied from 40-90 mg. of prednisolone per day, as for pemphigus foliaceous.

Results. These are summarised in Table No. 3. Out of 13 cases of pemphigus seborrhoecus, 5 were treated by local therapy only. Of these 2 remained in the stabilised phase, while 3 required steroids (40-60) as their condition deteriorated and lesions became more widespread. Once the condition reverted to seborrhoeic phase, steroids were gradually withdrawn and only local therapy continued.

Eight patients were put on small doses of steroids 15-40 mg. per day from the onset as their disease was more extensive. Three of these could be stabilised in the seborrhoeic phase, but the remaining five showed a tendency to spread to the severe foliaceous state. These patients had to be given a larger dose of 60-90 mg. of prednisolone per day which stabilised three in the seborrhaeic state and rendered two symptom free. Thus of the 8 patients on steroids, 2 became symptom free and 6 could be controlled on local therapy only after gradually withdrawing steroids.

Complications of steroid therapy. These are brought out in Table No. 4. In will be seen from this table that formidable complications may arise with prolonged steroid therapy, some of which required energetic measures. It is worth mentioning that osteoporosis or fractures were not encountered by us and this may probably be due to the lower dosage schedule adopted.

The utility of blood transfusions. This is brought out in Table No. 5. It will be seen from this table that transfusions alone or when combined with low doses of steroids had no effect on the disease process. When the disease was stabilised on moderate maintenance dose of prednisolone (15-20 mg. per day), we found blood transfusions useful in some patients who showed begining regression with increasing number of lesions. At this point two or three blood transfusions at weekly intervals were helpful in bringing about stabilisation once again without increasing the dose of prednisolone.

Follow-up. Table No. 6 shows overall results correlated with follow-up of 100 cases of pemphigus.

Twenty-two of the 69 cases of pemphigus vulgaris died, 9 were lost from follow-up and 38 are alive. Of the 38 four have been followed-up for less than six months, 12 for a period between one and three years, 11 for a period of 3 to 5 years, and 11 for 5 to 10 years.

Of the 18 cases of pemphigus foliaceous, 6 died 3 were lost from follow-up and 9 are alive. Of the latter one has been followed-up for a period of less than six months, 3 for 1 to 3 years, 4 for 3 to 5 years and one for 5 to 10 years.

Of the 13 cases of pemphigus seborrhoecus 1 was lost from follow-up and 12 are alive. Four have been followed-up for 1 to 3 years, 5 for a period between 3 and 5 years, and 3 for 5 to 10 years.

Discussion. In this series prednisolone was the corticosteroid mainly used. Though in our early cases we used ACTH and Cortisone, doses of these drugs have been converted into equivalent amounts of prednisolone in this report. We do not use ACTH while prednisolone is being withdrawn.

Pemphigus Vulgaris. Our initial dose of prednisolone in cases of pemphigus vulgaris was low as compared to that employed by the western authors<sup>2</sup>, <sup>4</sup>, <sup>5</sup>, <sup>7</sup>, <sup>8</sup>, and <sup>10</sup>. It varied from 30-160 mg. of prednisolone per day depending on the severity of the case. Occasionally, in our early trials we were forced to give smaller dose against our clinical judgement due to the nonavailability of the drug and this accounts for the loss of 12 patients with severe disease. In spite of this, our overall mortality rate, which is about 35% compares favourably with the experiences of other authors, <sup>2</sup>, <sup>4</sup>, <sup>8</sup>, who in spite of employing a higher dosage schedule, have a higher mortality rate. We feel that this initial dose of 30-160 mg. of prednisolone per day is sufficient to bring the disease under control in majority of Indian patients, unless they have come with very severe relapse due to sudden stoppage of corticosteroid therapy. This lower dose schedule, besides controlling the disease, minimses the serious complications commonly encountered by the western authors <sup>2</sup>, <sup>4</sup>, <sup>5</sup>, <sup>8</sup>.

Occasionally patients with pemphigus vulgaris may have a relapse while receieving maintenance dose of corticosteroids. We have come across two types of relapse. One is due to the sudden stoppage of therapy, which carried a grave prognosis and in spite of heroic measures like blood transfusions and giving about 160 mg. of prednisolone per day, we lost 7 such cases. A similar observation has also heen made by Stevenson<sup>10</sup>. Under such circumstances Lever<sup>4</sup>, <sup>7</sup> and Costello<sup>2</sup> have both advocated very high doses of corticosteroids. The other type of relapse we encountered was of a mild variety with few new lesions coming up here and there. This calls for a small and temporary increase of steroid dosage.

In some of our cases of pemphigus vulgaris, who were on maintenance therapy, we have seen persistent oral lesions, even though the skin lesions cleared up completely. These lesions require very high dose of corticosteroids to clear them completely. Hence we treat this condition with stress on oral hygiene and maintenance dosage of 20 mg. prednisolone only, unless the nutrition of the patient suffers because of difficulty in deglutition and mastication. Such resistant oral lesions have also been described by Sanders et al<sup>8</sup>,

Two of our cases of pemphigus vulgaris have been in complete remission for the last 6 years and do not require corticosteroids. Similar remissions have been reported by other authors<sup>2</sup>, <sup>4</sup>, <sup>5</sup>, <sup>10</sup>.

Pemphigus Foliaceous. In cases of pemphigus foliaceous, our plan of therapy has been to administer stericds to generalised cases only, until the disease is localised or lesions cleared up. The dose varied from 20-90 mg. of prednisolone per day, the aim being to localise the disease and make the patient comfortable. Perry et al<sup>6</sup> have given steroids with the same object in view. Lever (in discussion on Perry, H. O.6) on the other hand believes, that steroids should be given in doses sufficiently large to clear the skin of all lesions and induce a full remission, unless there is any contraindication. In 7 of our cases, we had an opportunity to give a dose of 80-90 mg, of prednisolone because of the toxic state of the patients. This dose is larger than the one we usually adopt (Table No. 2). In all 7 patients lesions cleared up completely. Whereas with the lower dosage schedule of 20-40 mg, of prednisolone only 3 patients out of 9 are symptom free. This gives us an impression that there is something to be said in favour of larger doses as suggested by Lever<sup>4</sup>. The fact that 6 of the patients out of 16 are completely symptom free without any treatment, shows that pemphigus foliaceous is a milder disease as compared to pemphigus vulgaris.

Pemphigus Seborrhoecus. Our results show that pemphigus seborrhoecus is comparatively a benign type of pemphigus. We lost none of our cases and 2 of our 13 cases have been maintained on local therapy only. Similar experiences have been quoted by Lever<sup>4</sup> and Stevenson<sup>10</sup>, who have had cases of pemphigus seborrhoecus maintained without corticosteroids for years.

Occasionally the disease tends to become wide-spread and patients becomes toxic. Under such circumstances in 11 cases we were forced to use steroids temporarily. Previously Desai and Rao<sup>3</sup> had brought out the relationship between the seborrhoecus and foliaceus types of pemphigus and presented the view that the former type may arise de novo or signify a stabilised disease process of the foliaceus type. This view seems to be confirmed by our further experiences.

Conclusions. Although steroid therapy has considerably improved the out-look and simplified the management of pemphigus, the mortality rate is still considerable. This may be due to high and prolonged steroid administration which requires careful watch and skillful management.

Prognosis of pemphigus varies according to the type and severity of the disease. Fulminating and severe varieties of pemphigus vulgaris carry the worst prognosis followed by that of foliaceus. Pemphigus seborrhoecus has the best prognosis.

60-160 mg. of prednisolone per day was found to be adequate in initiating the treatment in severe pemphigus vulgaris, while 30-60 mg. in the moderate variety. 20-90 mg. of prednisolone were necessary for pemphigus foliaceous and a similar dose for pemphigus seborrhoecus.

With two exceptions pemphigus vulgaris required a daily maintenance dose of 20 mg. of prednisolone.

Mild antibacterial and drying local remedies have considerable value in the control of pemphigus seborrhoecus and foliaceus, some cases of which could be controlled with this approach alone.

Blood transfusions were found to have a limited utility in stabilising pemphigus vularis on a low maintenance dose.

Table-1.

Treatment and results in 69 cases of pemphigus vulgaris

Clinical state No. of patients		Intial dosage	of prednisolone		R		
		Dosage	No. of patients	Dead Alive Maintena		Maintena- nce does	Remiss- ions
Severe	28	30 MG. per day	12	12	. —		
		60-160 mg. per day	16	7	9	20-30 mg. per day	
Modera	ate 41	30-60 mg. per day	41	5	36	10-20 mg. per day	2

Table-2.

Treatment and results in 18 cases of pemphigus foliaceus

	Results			Final State			
Initial treat- ment	No. of patients	Dead	Alive	Stabilised to seborrhoeic state	Comple- tely Healed	Nuberof patients on maintenance Steroids	
Local only	2	. 1	1	1			
Steroids 20-40 mg. per day	9	4	5	2	3	1	
Steroids 20-40 mg. per day	7	1*	6		. 7	3	

<sup>\*</sup>This patient died of unrelated cause after the lesions had healed.

Table-3.

#### Treatment and results in 13 cases of pemphigus seborrhoecus

Results				Course o	Course of patients in foliaceous Results			
Initial treatment	No. of Patients	Stabilised to seborrhoe.c state	Spread to foliaceous state	Dose of Predni- solone	Reversal to seborrhoeic state	Free of Lesion		
Local only	5	2	3	40-60 mg. per day	3	<u>-</u>		
Steroids 15–40 mg. per day	8	3	5	60-90 mg. per day	3	2		

Table-4.

Complication of Steroid Therapy in 61 Cases

The state of the s	Number of cases	
Moon face	35	
Cushingoid Syndrome	16	1.
Recurrent Pyoderma	9	
Gastro-Interstinal Disturbances	6	햦
Mental Changes	5	
Acne form lesions	10	
Thremboembolic Episodes	4	
Glycosuria	6	
Muscular Wasting	3	

Table-5.

Evaculation of blood transfusions in pemphigus valgaris

Additional treatment	Number of Patients	Results		
Without steroids	2	No effect		
With low* dosage of steroids	· · · · · · · · · · · · · · · · · · ·	No effect		
With large* dosage of steroids in				
fulminating cases	4	No effect		
With adequate* dosage of steroids	25	Useful in stabilisation		

<sup>\*</sup>Dosage as judged from clinical condition on admission.

Table-6.
Follow-up of 100 cases of Pemphigus

Control of the Contro					Follow-	Follow-up Period				
Variety	Total No. of Patients	Dead	Lost from Follow-up	Alive	< 6 Months	1-3 Years	3-5 Years	5-10 Years		
Vulgaris	69	22	9	38	4	12	11	11		
Foliaceous	18	6	3	9	1	3	4	1		
Seborrhoecus	13		1.	12		4	5	3		

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