

TREATMENT WITH "ALLPYRAL" POLLEN EXTRACTS IN HIGHLY SENSITIVE HAYFEVER PATIENTS

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For more than seven years papers have been published reporting on the clinical use of pyridine extracted-alum precipitated antigens, designated as "*Allpyral*" (1). Considerable interest has been evinced recently in the hyposensitisation treatment of pollenosis with *Allpyral* with special reference to highly sensitive patients (2, 3, 4, 5, 6, 8, 9, 10). Many advantages in using *Allpyral* extracts are stressed (9, 11). The use of this extract produced equally good or even slightly better clinical results than in control groups, given aqueous pollen extracts. Fewer injections were required; they could be given safely at longer intervals in higher individual doses. Local and systemic reactions were not reported in the treatment with *Allpyral* extracts (5, 9, 11) and their performance is very simple. The use of them is recommendable in workshop allergies in which an abundance of allergens for instance molds is to be found (11). In highly sensitive pollenosis patients this method offered a possible advantage in the treatment (2, 3, 4, 5, 6, 10). Some highly sensitive patients with hay fever are indeed "crux medici". In some pollenosis patients we cannot reach even a minimal amount of injected antigen pollen, because of the very high reactivity of these hay fever victims, who after a minimal dose of aqueous extracts developed a very strong constitutional reaction. We are compelled to use in highly sensitive patients symptomatic treatment with anti-

histaminics and corticosteroids only in order to give them relief. The prospect of these highly sensitive patients, treated with aqueous pollen extracts is not at all good and they usually develop a full picture of hay asthma with all its consequences.

MATERIAL AND METHODS

A total of 98 patients were treated with *Allpyral* pollen extracts since 1964 (Table 1).

Twentyone of the 98 patients belong to the highly sensitive group. Seventy-seven patients were converted from aqueous extracts given preseasonally before 1964 to *Allpyral* extracts and they received their hyposensitisation injections without any difficulty. Of special interest is the group of the highly sensitive patients (Table 2).

Twentyone patients are included in this group. Before 1964 none of these 21 patients was able to receive hyposensitisation treatment because of getting systemic reactions even after a minimal dose of 20 P.N.U. (Table 3 and Table 4).

The full case histories of three representative, highly sensitive and reactive patients to even very small doses of aqueous pollen extracts are given as examples.

TABLE 1
Positive Intracutaneous Tests.

Etiological factors	Number of cases	Per cent
Gramineae	60	61.2
Olea	12	12.3
Olea and Gramineae	20	20.4
Artemisia	0	
Artemisia and Gramineae	4	4.1
Olea and Artemisia	2	2

TABLE 2
Highly Sensitive Patients, Positive Intracutaneous Tests.

Etiological factor	Number of cases
Gramineae	12
Olea	5
Artemisia	0
Gramineae and Olea	4

TABLE 3

Duration of Hay Fever Symptoms before Treatment.

Years	Number of cases
1-3	13
3-5	5
5-7	3

TABLE 4

Constitutional Reactions in Highly Sensitive Patients.

After aqueous extracts	Number of cases
5 units	1
10 units	11
20 units	9

Case 1

L. Nathan 37, farmer, suffering from hay fever since 1962. Positive intracutaneous test to Olea and Gramineae marked + + + +. From March up to the end of May very heavy sneezing, lacrimation and occasionally wheezing. After performance of intracutaneous test with Olea and Gramineae a constitutional reaction. Five units of aqueous Olea extracts and 5 units of Lolium plus Orchard extract evoked itching on the palms of his hands, sneezing, running of the nose and slight wheezing. Repeating the same dose after one week elicited the same symptoms.

We decided to give up any hyposensitisation trial and to give him during the season only corticosteroids and antihistaminics. In January 1964 we started the treatment with *Allpyral* pollen extracts and could reach this year a dose of 2000 P.N.U. of both pollen, Olea and Gramineae. During the season 1964 mild symptoms of hay fever only. December 1965 we started again with *Allpyral* pollen extracts and reached before March 1966, 4000 P.N.U. of each pollen. During this season free of symptoms.

Case 2

O. Dolly, female, housewife, suffering from hay fever for 5 years. Positive intracutaneous reactions to Olea and Gramineae marked + + + +. Sneezing, lacrimation, sore throat and wheezing, from March up to the end of May. December 1963 the first trial of hyposensitisation injections with aqueous pollen extracts of 10 units with very heavy constitutional reaction. 1962 from March up to the end of April only symptomatic treatment with corticosteroids and

antihistaminics. December 1963 we started with 20 P.N.U. of *Allpyral* pollen extracts and reached up to March a dose of 500 P.N.U. During the hay fever season slight sneezing, lacrimation but without wheezing and cough. December 1964 we started again with *Allpyral* pollen extract treatment and before March we went up to 2000 P.N.U. This season was much easier and she used only antihistaminics for relief. December 1965 again starting with *Allpyral* pollen extracts and up to March we went up to 3000 P.N.U. Hay fever season 1965 was completely free of symptoms.

Case 3

Abner Sch. 22. Farmer in workers settlement suffering from hay fever for three years. Sneezing, blocking and running of the nose, coughing and wheezing during the season from March up to the end of May. Marked + + + + reaction with pseudopodia to Gramineae and Olea aqueous extracts. This patient reacted with a constitutional reaction to 30 P.N.U. of aqueous pollen extracts and we had to give up any hyposensitisation trial; he received during the hay fever season only corticosteroids and antihistaminics but he still had a severe hay fever during the season. At the end of December 1963 we started with 20 P.N.U. of *Allpyral* pollen extracts and we were able to reach 500 P.N.U. before the season 1964 and the next year we reached 2000 P.N.U. pollen extract in preseasonal treatment without any reaction. The hay fever season 1964 he passed with very slight symptoms, so light that we could do without any symptomatic drugs.

RESULTS

Seventyseven of the 98 patients reached the top dose of 15000-20.000 P.N.U. in 8-10 injections at intervals of two weeks without any reaction. In the group of highly sensitive pollen patients (21) we started performing hyposensitisation injection with *Allpyral* pollen extracts (Table 5).

Concerning this group of highly reactive patients, we could

TABLE 5
Treatment with Allpyral of Highly Sensitive Patients.

Maximum dose	Number of cases	Intervals
500 P.N.U.	3	10 days
2.000 P.N.U.	8	2 weeks
3.500 P.N.U.	6	2 weeks
5.000 P.N.U.	4	3 weeks

reach 500 P.N.U. only in three patients at intervals of ten days. 2000 P.N.U. in eight patients. 3,500 P.N.U. in six patients at intervals of two weeks and 5000 P.N.U. in four patients at intervals of three weeks (Table 6).

TABLE 6
Reactions During the Hay Fever Season.

Number of patients	Symptoms
17	Very mild symptoms; without any symptomatic treatment.
4	Mild symptoms, sneezing and running of the nose. For relief only use of anti-histaminics in small amounts.

Only in three patients we could reach a dose of 500 P.N.U. without any reaction. These three patients receiving 500 P.N.U. did well but with the trial of increasing doses beyond 500 P.N.U. they developed slight local reactions.

With other patients of this group we could achieve a dose up to 5000 P.N.U. without any reaction. It is interesting to note that all the patients of this highly sensitive group, had a very mild hay fever season, except four patients, who were compelled to use antihistaminics during the hay fever season, suffering from very slight discomfort.

CONCLUSIONS

1. The clinical results in hay fever patients treated with *Allpyral* pollen extracts were as good as and perhaps even better than in patients previously treated with aqueous pollen extracts, having the added advantage of fewer injections (8-10) in much longer intervals.
2. The advantage of treating the highly sensitive patients with *Allpyral* pollen extract is remarkable. Twentyone patients who previously had constitutional reactions with low doses of

aqueous pollen extracts, were able to reach a much higher dose of pollen extract being treated with *Allpyral* pollen extracts amounting to 500, 2000, 3,500 and even to 5000 P.N.U. without any reaction.

SUMMARY

Ninetyeight patients were treated with *Allpyral* pollen extracts. Among these patients was a group of 21 patients, who previously could not even start the treatment with aqueous pollen extracts because of constitutional reactions to minimal doses, but when treated with *Allpyral* pollen extracts they were able to reach a high dose.

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