Statistical Evaluation of an Application Study with the preparation series LARIFIKEHL

in the administration forms of drops, capsules and injections

by Dr. Reiner Heidl
1. Introduction
A total number of 188 patients in two medical practices, one specialising in internal medicine and one in general medicine, participated between January 1997 and February 2001 in an application study with the preparation series LARIFIKEHL in the administration forms of drops, capsules and injection. The homoeopathic test preparation, LARIFIKEHL, consists (with respect to the different administration forms) of Larici-fomes officinalis e mycelio in the 4th and 5th decimal potencies.

LARIFIKEHL drops
10 ml contain: 10 ml Larici-fomes officinalis e mycelio D5 dil. in accordance with provision 5a, HAB.

LARIFIKEHL dilution for injection
1 ml contains: 1 ml Laricifomes officinalis e mycelio D5 aqueous dilution in accordance with provisions 5b and 11, HAB.

LARIFIKEHL capsules
1 capsule contains: 330 mg Laricifomes officinalis e mycelio D4 trituration in accordance with provision 6, HAB.

The aim of this application study was to determine the actual application of the preparation as well as its tolerance under the day-to-day conditions of a normal practice. It was also of importance to determine the acceptance of the preparation on the market, in particular amongst children.

In line with the study's set-up, only descriptive statistical methods were used. The application of inductive methods was not indicated. An "intention-to-treat" evaluation was carried out, i.e. only patients who had at least received one dose of the medicament were included in the study.

2. Participating patients
188 patients participated in the study, comprising of 70 males (37.2%) and 118 females (62.8%). The age of the patients varied between 7 and 78 years, with an average of 33.5 and a standard deviation of 17.9 years.

The largest age group was that of patients between 12 and 20 years (27.1%). Almost of the same size were the groups under 12 years and between 21 and 30 years with 9.6% of the patients. Between 31 and 40 years were 21.3%. Almost of the same size were the groups between 41 and 50 years (12.2%) and between 51 and 60 years (11.2%). 8% of the patients were between 61 and 70 and only 1.1% were over 70 years. Regarding age structure, the males with an average age between 39.5 ± 16.9 were on average 10 years older than the females with 29.9 ± 17.6 years.
Height varied between 102 and 190 cm with an average of 164.7 ± 18.0 cm, and weight was between 30 and 96 kg with an average of 66.2 ± 13.6 kg.

2.1 Diagnosis and accompanying diseases
The diagnosis leading to the prescription was to be entered in the study protocol and it showed that LARIFIKEHL, according to Isopathy, was used in a very wide application range. The preferred application was (without Polyarthritis, which was mentioned only by adults) independent of the patient's age. The main indication ranges were bronchitis, gastro-enteritis, fever and primary chronic polyarthritis. A diagnosis was made before the start and at the therapy's end. Accompanying therapies were to be documented in the evaluation form.

In order to obtain a measure of chronic diseases, the patients were asked in the study protocol how long they had suffered from the disease or complaints. Time frames were given of less than six months, up to one year, up to three years and more than three years. 51.1% of the patients suffered for less than six months, 2.7% between six and 12 months, 6.9% between one and three years and a large patient group (39.4%) for more than three years. The patient group over 12 years showed a similar picture with two large groups which suffered for less than six months (52.9%) and longer than three years (40.0%). In the children group under 12 years, three equal groups suffered for less than six months, between one and three years and over three years.

<table>
<thead>
<tr>
<th>Duration of Complaints (Months)</th>
<th>Total Patient Population (%)</th>
<th>Patients &lt; 12 years (%)</th>
<th>Patients &gt; 12 years (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 6</td>
<td>51.1</td>
<td>33.3</td>
<td>52.9</td>
</tr>
<tr>
<td>6 - 12</td>
<td>2.7</td>
<td>0</td>
<td>2.9</td>
</tr>
<tr>
<td>&lt; 36</td>
<td>6.9</td>
<td>33.3</td>
<td>4.1</td>
</tr>
<tr>
<td>&gt; 36</td>
<td>39.4</td>
<td>33.3</td>
<td>40.0</td>
</tr>
</tbody>
</table>

3. Dosage and duration of treatment

3.1 Time of consultation and duration of treatment
According to the nature of an application study, the physicians were not given a preset time limit for the final patient assessments. The final examinations were conducted after a period of 17 to 405 days, with an average of 83.3 ± 66.6 days.

The therapy duration amongst the children (< 12 years) was on average 115.6 ± 50.6 days and was approx. 40% longer than the adult group with 79.9 ± 67.1 days. A therapy duration between 25 and 50 days was especially predominant in 47.1% of the adult patients, whilst a therapy duration between 125 and 150 days was predominant with the children.

3.2 Dosage
The dosage was set according to the patient information leaflet as follows:
LARIFIKEHL drops
Oral application: 1-8 drops daily before a meal.
Topical application: 2x weekly, 5-10 drops on the affected area or in the cubital fossa.
LARIFIKEHL injections
2x weekly 1.0 ml i.m., i.v., i.c. or s.c.
LARIFIKEHL capsules
1-3 capsules daily with some liquid before breakfast or in the evenings at bedtime.

Concerning the administration forms, 121 patients took capsules, 153 patients were treated orally, 15 patients topically (daily), 32 patients with injections (daily) and 34 patients with injections (weekly). Multiple counts were necessary where various application forms were combined. Only 12.8% of the patients were treated with a monotherapy with one application form. The most common combination (39.9%) was that of capsules and drops for oral intake. The combination of capsules, drops for oral intake and injection was used with 12.8% of the patients, drops for oral intake and topical application in 14.9% and drops for oral intake and injection in 8.5% of the patients. Other combinations were insignificant, such as drops for oral intake and injection (6.4%), capsules and injection (2.1%), capsules and drops for oral intake and topical application (1.6%) and capsules with drops for topical application with 1.0% of the patients.

The following tables show the average dosage of the administration forms. There was no significant difference concerning the dosage in both the age groups under 12 and over 12 years.

There is a difference in both age groups concerning the extent of the combination of the application forms insofar as only capsules,
drops for oral intake and weekly topical application were used in the children group and, therefore, the combinations within the application forms were limited.

4. Efficacy and tolerance

4.1 Evaluation of efficacy by doctor and patient

Physicians and patients were asked to evaluate efficacy and tolerance for the closing assessment. Efficacy could be assessed with "very good", "good", "moderate" or "no effect". The physicians were also requested to evaluate patient compliance with "very good", "good", "moderate" or "non-compliant". The evaluation of efficacy showed that 42.1% of the patients assessed efficacy with "very good", 32.8% with "good", whilst 25.1% assessed efficacy with "moderate". No patient assessed efficacy with "no effect". The results of the physicians' evaluation for efficacy were almost identical to that of the patients. In 43.4% of the cases, physicians assessed efficacy with "very good", 34.1% with "good" and 22.5% with "moderate". The evaluation by physicians and patients shifted, according to tendency, to "very good" in the group under 12 years. In this age group, the patient's evaluation was identical to that of the physicians.

Compliance (N = 180) was assessed by the physicians to be "very good" for 149 patients and "good" for 31 patients. Hence, 95.7% of all patients participating in the study were given a "good" or "very good" compliance rating. The compliance of no patient was assessed with "non-compliant".

4.2 Evaluation of tolerance by doctor and patient

At the study's conclusion, an evaluation of tolerance was submitted by the physicians and patients, whereby an assessment of "very good", "good", "moderate" and "no effect" could be chosen. 98.9% of patients and 97.8% of physicians rated tolerance to be "very good", whilst 1.1% of patients and 2.2% of physicians gave LARIFIKEHL a "good" tolerance rating. Neither patient nor physician gave a rating of "moderate" or "no effect".

Whilst in the age group under 12 years, 100% of the patients and physicians rated tolerance to be "very good", this was the case in the group over 12 years with 98.8% of the patients and 97.6% of the physicians.
4.3 Side effects and discontinuation of the therapy
No therapy with LARIFIKEHL was discontinued and no side effects were reported.

5. Summary
A total number of 188 patients in two medical practices (one specialising in general medicine and one in internal medicine) participated in an application study between January 1997 and February 2001 with the preparation series LARIFIKEHL in the administration forms of drops, capsules and injection. The homoeopathic test preparation, LARIFIKEHL, consists (with respect to the different administration forms) of Laricipones officinalis mycelio in the 4th and 5th decimal potencies.

The age of the patients varied between seven and 78 years with an average age of 33.5 years.

LARIFIKEHL, according to Isopathy, was used in a very wide application range and was administered independent of the patient's age. The main indication ranges were bronchitis, gastroenteritis, fever and primary chronic polyarthritis. Accompanying therapies were to be documented in the evaluation form.

51.1% of the patients suffered for less than six months and the second largest patient group (39.4%) for more than three years. The patient group over 12 years shows a similar picture with two large groups which suffered for less than six months (52.9%) and longer than three years (40.0%). In the children group under 12 years, three equal groups suffered for less than six months, between one and three years and over three years.

The therapy duration amongst the children (< 12 years) was on average 115.6 ± 50.6 days and
was approx. 40% longer than in the adult group with 79.9 ± 67.1 days. The therapy duration between 25 and 50 days was especially predominant in the adult group (47.1% of the patients) and the therapy duration between 125 and 150 days was predominant with the children.

Concerning the administration forms, 121 patients took capsules, 153 patients were treated orally, 15 patients topically (daily), 32 patients topically (weekly), 20 patients with injections (daily) and 34 patients with injections (weekly). Multiple counts were necessary, if various application forms were combined. Only 12.8% of the patients were treated with a monotherapy with only one application form. The most common combination (39.9%) was that of capsules and drops for oral intake. In both age groups under and over 12 years, the dosage was not significantly different. There was a difference in the extent of the combination of the application forms insofar, as in the children group only capsules, drops for oral intake and the weekly topical application of drops were used.

The therapeutic progress was determined by evaluations conducted at the beginning and the end of the therapy.

The evaluation of efficacy showed that 42.1% of the patients assessed efficacy with "very good", 32.8% with "good", whilst 25.1% assessed efficacy with "moderate". No patient assessed efficacy with "no effect". The results of the physicians' evaluation for efficacy were almost identical to that of the patients. In 43.4% of the cases, physicians assessed efficacy with "very good", 34.1% with "good" and 22.5% with "moderate". The evaluation by physicians and patients shifted, according to tendency, to "very good" in the group under 12 years. In this age group the patient's evaluation was identical to that of the physicians.

Compliance (N = 180) was assessed by the physicians to be "very good" for 149 patients and "good" for 31 patients. Hence, 95.7% of all patients participating in the study were given a "good" or "very good" compliance rating. No patient was assessed as "non-compliant".

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