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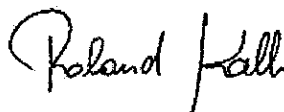
**COMPARATIVE STUDY OF THE EFFECTIVENESS OF THE
PRODUCTS
PARASIDOSE anti-poux LOTION TRAITANTE
VERSUS SPRAY 44% huile de noix de coco and 15% cis-anethole
IN ACUTE AND SUBACUTE EFFECTIVENESS AGAINST THE HEAD
LOUSE PEDICULUS HUMANUS CAPITIS**

Test Products :

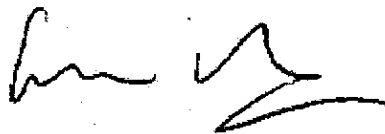
3 x 100 ml de lotion traitante Parasidose.

3 x 100 ml spray 44% huile de noix de coco and 15% cis-anethole.

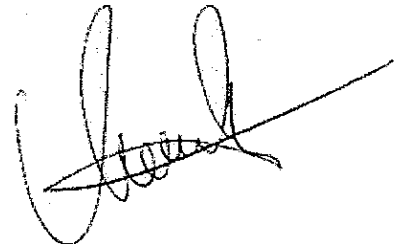
Wr. Neustadt, le 28 mars 2006



Roland Kalb, Mag.



Gerlinde Mühlhofer, Mag.



Alois Mühlhofer

Object of the Contract:

The biological product *Parasidose anti-poux lotion traitante*, which is free of conventional insecticides, was to be subjected to a test of its effectiveness under real-world conditions to determine whether the lice and nit-removing effect found in laboratory experiments is also adequate under normal field and practical conditions to eradicate infestations of *Pediculus humanus capitis* in humans on both an acute and subacute basis in a comparison test against **Spray 44% l'huile de noix de coco** and **15% cis-anethole**.

Experimental Methodology:

Through the mediation of the official agencies responsible for hygienic matters in the local district, 24 persons infested with lice were selected. These were people who, by reason of distance and living circumstances, were able not only to receive the appropriate acute treatment but also to show up for the subacute follow-up examination about 10 days after the treatment. It was also possible to establish that these people would be receptive to the instructions which we were to give them concerning uncontrollable reinfestation as a result of failure to follow precautionary hygienic measures. No later follow-up studies were conducted, because it would have been impossible to establish with certainty that any new infestation which might have occurred in this period of time did not have an external source and could definitely be attributed to surviving nits remaining from the old infestation.

In the morning of the test day March, 16, 2006 between 8:00 and 9:00 p.m. the documented test subjects were now subjected one by one to an examination to determine their status before the treatment. The numbers of lice and nits occupying the head were counted out with the help of a dust comb and an illuminated magnifier. Care was taken not to remove the lice or separate the nits from the hair shafts.

After documentation of status quo probands-nos 1 to 12 were treated with *Parasidose anti-poux lotion traitante* and probands-nos 13 to 24 with **Spray 44% l'huile de noix de coco** and **15% cis-anethole** immediately. That is, into dry hair and scalp of nos 1 to 12 was worked thoroughly 5-20 ml of *Parasidose anti-poux lotion traitante* and of nos 13 to 24, 5-20 ml **Spray 44% l'huile de noix de coco** and **15% cis-anethole**, the exact amount was calculated depending on the length and density of the hair, to form a fully coating under gentle massage.

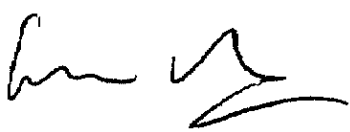
To evaluate dead and alive lice and adhering nits onto hair on same day, starting at 6:00 a.m., 10 hours after treatment of test subjects, a hair washing sink was set up in a suitable room provided with appropriate utility hook-ups. The drain of the sink was provided with a filter cartridge with a 1.5- μ screen, so that the number of washed-off and rinsed-out lice and nits could be verified quantitatively and qualitatively.

The test subjects dressed themselves in fresh clothing which they had brought with them (only the upper body, since the infestations involved only head lice; the changed articles of clothing were tightly sealed in plastic bags, the procedure for handling which was included in the hygiene instructions). A hairdressing cape was placed over their shoulders.

Then the hair and the scalp of all subjects were first thoroughly wetted under running water, and then washed with normal shampoo two times lasting 5 minutes.

The next step was to examine each of the test subjects immediately with a dust comb and the illuminated magnifier to determine if there were still any adhering lice or nits in washed wet hair and scalps to document the status after treatment.

The lice which had been rinsed off and collected on the screen were counted, and it was determined whether it was possible to establish a correlation with the original status and with the status after treatment. A binocular microscope was then used to check the lice for mortality over the course of the next 3 hours at 37°C; only those parasites which did not move their tentacles and legs and which lacked peristalsis of the intestine were acknowledged as dead.

Roland Fall  

The rinsed-off nits could not be counted with precision because of their size and mushy consistency in the dirt collected from the wash water. They were considered dead, because separation from the hair shaft had eliminated their ability to undergo metamorphosis.

After treatment and documentation, the test subjects themselves or their legal guardians in the case of minors were visited at home by Institute personnel and given detailed instructions concerning hygienic and preventive measures. These instructions were demonstrated on the basis of practical examples:

- Clothing and pyjamas were to be changed and immediately boiled in the washing machine; or, if the articles of clothing or head coverings could not be boiled, they were to be stored for 4 weeks in tightly sealed plastic bags to starve any lice which may have been present (including the parasites which may have hatched from the nits). Family members who had been examined and found to be free of lice and had therefore not participated in the treatment were also given these same instructions.
- Instructions were also given on how to keep the living spaces and the body clean and on how to behave when in contact with at-risk groups in the test subject's environment, the purpose being to prevent environmental conditions from causing a reinfestation, which would interfere with the subacute follow-up examination.

Experimental Results and Conclusion:

Evaluation of the individual results showed with certainty that it was possible to kill and wash away all of the lice by treating the lice-infested persons with *Parasidose anti-poux lotion traitante* and with **Spray 44% l'huile de noix de coco and 15% cis-anethole** also in strict accordance with the instructions.

It was also found that the proper treatment with *Parasidose anti-poux lotion traitante* removes all of the nits adhering to the hair shafts. In particular, the follow-up examination after 10 days showed that all 12 test subjects were free of both lice and nits.

On treated probands with **Spray 44% l'huile de noix de coco and 15% cis-anethole** were found nearly 60% of counted amounts of nits before treatment at the evaluation 10 hours after treatment (see tables below).

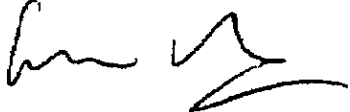

Neither at the status determination 10 hours after treatment nor at the subacute follow-up after 10 days was it possible to detect any lice or nits on any of the test subjects treated with *Parasidose anti-poux lotion traitante*. Even the few lice which were combed out of the hair (not from the scalp) during the status determination after the treatment were found to be dead when the mortality check was conducted under the binocular microscope at 37°C over the following 3 hours.

The determination 10 hours after treatment with **Spray 44% l'huile de noix de coco and 15% cis-anethole** showed only dead lice but 60% adhering nits and the subacute follow-up check of nos 13 to 24 showed little numbers of new-grown lice and higher numbers of nits on several probands.

The same is true for all of the lice which had been removed from the drain screen, because there was no movement of any kind of the tentacles or legs, and it was no longer possible to detect any peristalsis. In addition, the content of the intestine, which is always red in a live louse from the blood which it has sucked, had already turned black.

Remark: test subjects treated with **Spray 44% l'huile de noix de coco and 15% cis-anethole** showed latest 30 minutes after application soreness, red-rimmed inflamed eyes (corneas was also reddened after 2 hours) and complained about stench in the nose and greasy appearance of hair. Those effects was initialised by high contents of Anethol and coconut oil how declared on patient information of product.

The data and the individual results can be found in the he following tables.
End of LHSPAR/0306.

Roland Hall  

Tables for LHSPAR/0306

1. List of Test Subjects and Status Determination Before Treatment

No.	Sex	Hair Condition	Age	Infestation with Lice	Infestation with Nits
1	m	Fine, curly, blond.	19	7	13
2	m	Shaggy black mane, long, unkempt.	6	11	22
3	f	Thin, unkempt, stringy blond hair; greasy-flaky scalp.	44	13	21
4	f	Pageboy, blond, greasy.	26	15	23
5	m	Blond curls, unkempt.	7	8	11
6	f	Long, fine, tangled, unkempt hair.	33	27	22
7	f	Grey, thin, brittle hair, pigment spots on the scalp.	69	6	20
8	m	Long grey pony tail.	56	14	32
9	m	Long, red, dyed curly hair.	12	14	28
10	f	Reddish-blond, medium-length.	41	13	26
11	f	Reddish-blond greasy curls.	22	17	30
12	m	Black long-fat, greasy flakes.	40	23	16
13	m	Long blond-fat hair.	29	16	21
14	m	Long, blond, smooth hair, flakes.	15	15	25
15	f	Long, smooth, blond hair, flakes.	10	11	24
16	f	Brunette, tangled, greasy, very dirty.	55	14	28
17	f	Dark blond, tangled, very dirty.	50	12	26
18	m	Black, tangled like wire.	26	32	60
19	m	Very long grey dirty.	57	16	32
20	m	Short unkempt, greasy flakes.	33	14	26
21	m	Short military haircut, blond.	17	8	10
22	m	Short military haircut, black.	19	9	12
23	f	Long, tangled, blond curls.	4	19	28
24	f	Medium-length thick blond hair.	15	9	22

2. Status Determination after Treatment and Subacute Status after 10 Days.

No.	Lice after Treatment	Nits after Treatment	Lice, Subacute after 10 Days	Nits, Subacute after 10 Days
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7	0	0	0	0
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	0	0	0	0
12	0	0	0	0
13	0	13	4	22
14	0	15	0	7
15	0	14	0	0
16	0	17	2	12
17	0	15	0	0
18	0	34	0	5
19	0	20	2	14
20	0	14	0	0
21	0	7	0	0
22	0	7	4	13
23	0	16	0	6
24	0	13	2	13

End of the Tables for LHSPAR/0306

Roland Fell