SAFETY OF CHANNA STRIATUS 5% CREAM
A NATURAL MALAYSIAN RESOURCE TO IMPROVE
INFLAMMATORY SKIN CONDITIONS

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Introduction: This is a phase one clinical trial to examine the safety of Channa striatus (ikan haruan) HBC (haruan based cream) 5% cream with patch testing and cumulative dosing for up to 4 weeks. C striatus or better known as Haruan fish is a fish species indigenous to Malaysia. Most medical properties of Haruan are contributed to its high content of essential fatty and amino acids. Other well-known pharmacological properties of Haruan apart from wound healing and anti-eczema, antinociceptive effects and platelet aggregations.

Methodology: This was a two-stage process. 83 subjects who fulfilled the inclusion criteria underwent patch testing. The allergens were aqueous and HBC 5%, patch tested simultaneously but separately on each arm of the same subject. Subjects with a negative patch test went on to stage 2, whereby they applied randomly assigned creams on each forearms for a duration of 1 month. The subjects were clinically evaluated every week for each treatment regimen. The study creams in its jars were weighed weekly to document amount used. The study cream used was a prototype cream with more than 60% locally sourced ingredients.

Results: A total of 83 participants were screened successfully and underwent patch testing. The mean age of the participants was 24.89 years, whom comprised of 54 females and 29 men. One participant in the cohort developed positive patch test to C striatus and excluded from stage 2 of study. Two participants experienced side effects. A total of 80 participants completed 4 weeks of this study. The incidence of positive patch test was 1.2% and adverse effects was seen in 2.4% of participants.

Discussion: As this was a first phase clinical trial study participants with normal skin from a healthy population were chosen. Many inflammatory skin conditions particularly atopic dermatitis have a higher prevalence on the younger age groups. With this in mind, the age group of adolescent and young adults were chosen.

The amount of CS cream used by the participants varied from less than 10gm to more than 40 gm in 4 weeks with average use of 10.24 gm. As the amount of CS cream used was small, the systemic absorption was expected to be low and no further laboratory testing was conducted.

One out of 83 participants developed positive patch test, in which this subject had history of seafood allergy but not specifically on “Haruan fish”

Two out of 81 participants developed adverse effects, but considered mild, as both had minimal papules and erythema which cleared with topical treatment. First case developed minimal erythema and itch at day 3 after receiving a total cumulative dose of 0.25gm and the second case developed symptoms at day 28 after receiving 5.04 gm of CS cream. Neither one of them had any known food allergy.

Conclusion: The uniquely Malaysian C striatus 5% cream has a good safety profile with a low incidence of allergic and irritant contact dermatitis for up to 4 weeks of use. The incidence of contact irritant and allergy was less than 20%, therefore this gives us the platform for embarking on further research for the use of C striatus for the treatment of inflammatory skin conditions.

References: