

Clinical Study Summary of Nail Patch AG

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| Test title | A human application test of 'Nail Patch AG' on improvement of nail roughness, nail water loss and nail cuticle by external stimulus (physical damage) | |
| Testing agency | Korea Institute of Dermatological Science | |
| Referral agency | WOOSHIN LABOTTACH CO., LTD. | |
| Test manager | ScD Ahn In-sook | |
| Test personnel | ScD GwonSeung-bin | |
| Name of test material | Nail Patch AG | |
| Test period | December 22, 2016(Date of test start) ~ January 26, 2017(Date of test end) (Date of test start: A day when the test manager signed the test plan/Date of test end: A day when the test manager signed the final report) | |
| Subject | 20 women aged 20~60 who meet the selection criteria of subjects and do not correspond to the exclusion criteria | |
| Test method | Sample use method | <ol style="list-style-type: none"> 1.The test person in charge wash left index finger nail of all subjects and give external stimulus (physical damage) by applying nail file of 10 times. 2. Every evening for four weeks of the test period, the subjects applied Nail Patch AG on the left index finger nail and thumbnail after washing and then removed it after 8 hours. |
| | Assessment method | <p>This test was performed according to SOP of Korea Institute of Dermatological Science and all process was inspected by the person in charge of reliability assurance.</p> <ol style="list-style-type: none"> 1. Device measurement <ol style="list-style-type: none"> 1) Assessment about improvement of nail roughness by external stimulus (physical damage) through ANTERA 3D 2) Assessment about improvement of nail water loss by Vapometer 3) Assessment about improvement of nail cuticle by Video microscope and image analysis program 2. Assessment of skin disorder response 3. Survey |

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| <p>Test results</p> | <p>1. Assessment results about improvement of nail roughness by external stimulus (physical damage) through ANTERA 3D Compared to before using the test material, Texture small value indicating nail roughness was reduced 8.44% and 7.19% 1 time after use and 4 weeks after use, respectively ($p < .05$). This results show that Nail Patch AG improves nail roughness by external stimulus (physical damage).</p> <p>2. Assessment results about improvement of nail water loss by Vapometer Compared to before using the test material, transepidermal water loss was reduced 13.40% and 14.43% 1 time after use and 4 weeks after use, respectively ($p < .05$). This results show that Nail Patch AG improves nail water loss by external stimulus (physical damage).</p> <p>3. Assessment results about improvement of nail cuticle by Video microscope and image analysis program Compared to before using the test material, nail cuticle was reduced 56.50% and 47.26% 1 time after use and 4 weeks after use, respectively ($p < .01$). This results show that Nail Patch AG improves nail cuticle by external stimulus (physical damage).</p> <p>4. During the test period, no skin disorder response was observed from subjects.</p> |
| <p>Conclusion</p> | <p>'Nail Patch AG' requested by WOOSHIN LABOTTACH is determined as appropriate product for improvement of nail roughness, nail water loss and nail cuticle by external stimulus (physical damage).</p> |