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#### **AESTHETIC & COSMETIC SYMPOSIUM (ACOS) 2024**

Following the success of the Aesthetic & Cosmetic Symposium (ACOS) in 2023, the USMARI Research & Innovation Centre, in collaboration with the International Medical Aesthetic Conference & Exhibition (IMACE) and Esthetic Medical Solutions (EMS), is delighted to present the 2<sup>nd</sup> ACOS 2024. This year's symposium, themed "Implementation of Evidence-Based Medicine in the Aesthetic Industry," aims to highlight the latest advancements and future directions in aesthetic procedures and cosmetic products. Our focus is on promoting scientific evidence as the foundation for all aesthetic practices and cosmetic products, ensuring that procedures and products are used and conducted ethically, effectively, and with the utmost commitment to public safety.

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It is my privilege to warmly welcome you to the 2<sup>nd</sup> Aesthetic & Cosmetic Symposium (ACOS) 2024 and the 3<sup>rd</sup> International Medical Aesthetic Conference and Exhibition (IMACE), organized by the USMARI Research & Innovation Centre in collaboration with IMACE and Esthetic Medical Solutions (EMS). This year's theme, "Implementation of Evidence-Based Medicine in the Aesthetic Industry," highlights the vital role that scientific rigor plays in shaping the dynamic and ever-evolving field of aesthetic medicine and cosmetic sciences.

In recent years, the aesthetic medicine and cosmetic industries have made remarkable progress, with patient care, safety, and treatment outcomes increasingly grounded in solid scientific evidence. ACOS 2024 aims to underscore the importance of education and knowledge for aesthetic medical practitioners, industry leaders, researchers, and all participants with a passion for aesthetic medicine and cosmetics. This symposium brings together experts, researchers, and practitioners from around the world, all united by a shared goal: to elevate the standards of aesthetic practices and the cosmetic industry through evidence-based approaches.

We are honoured to host a distinguished line-up of speakers, each bringing unique perspectives and expertise to the table. ACOS 2024 offers a remarkable platform for interdisciplinary dialogue, where the latest innovations in aesthetic medicine and cosmetics can be shared and explored. As we navigate through the extensive program, I encourage you to actively engage in discussions, ask thought-provoking questions, and build meaningful connections. It is through this spirit of collaboration that we continue to push the frontiers of the aesthetic medicine and cosmetics industries. Whether you are a clinician, researcher, or industry professional, we are confident that this event will provide valuable insights to help shape the future of these ideas.

I would like to express my deepest appreciation to the USMARI Research & Innovation Centre, the Ministry of Health (MOH), the Ministry of Science, Technology & Innovation (MOSTI), Tourism Malaysia, our esteemed speakers, sponsors, the scientific committee, and the entire organizing team for their unwavering support and dedication. Your contributions are what make this symposium truly exceptional.

Once again, welcome to ACOS 2024. Let us seize this opportunity to learn, connect, and inspire each other as we work towards a future where science and aesthetics harmonize for the betterment of aesthetic medicine and the cosmetics industry.

### Implementation of Evidence-Based Medicine in the Aesthetic Industry

Yours sincerely,

**Assoc. Prof. Dr Ungku Mohd Shahrin Mohd Zaman, MD** Organising Chairman of ACOS 2024





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### **ORAL PRESENTATION ABSTRACT**

### ACOS24-O-001: From Likes to Looks: Social Media's Influence on Consumer Interest in Aesthetic Treatments vs. Cosmeceuticals Across the U.S., Brazil, South Korea, and Dubai

### Aya Jabbar Hussein<sup>1\*</sup>

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This pioneering study explores the interplay between social media marketing and consumer behaviour in the beauty and cosmetics sector, focusing on facial rejuvenation procedures and topical cosmeceuticals across the U.S., Brazil, South Korea, and Dubai. A Convergent Parallel Mixed-Methods integrates quantitative social media and website analytics with qualitative insights, guided by the Theory of Attribution and the Theory of Planned Behaviour to deepen understanding of consumer behaviour and decision-making. The study addresses a knowledge gap by examining consumer perceptions and preferences in these often-isolated categories. Findings reveal regional differences in platform engagement and demographics. YouTube dominates in all regions, with engagement exceeding 90% in Brazil, South Korea, and the U.S. South Korea uniquely uses GitHub for beautyrelated knowledge sharing, demonstrating innovative consumer behaviour, with male engagement in the online market notably high at 39% and Instagram (63%) also playing a key role. The 25–34 age group emerges as the leading demographic, with women comprising the majority across regions. In the U.S., 65% of the online beauty audience consists of university-educated women. Brazilian online consumers span diverse income levels, with 89% favouring YouTube. Dubai insights highlight scepticism toward commercial motives and a preference for immediate outcomes, reflecting distinct cultural values. Cosmeceuticals outperform aesthetic procedures in YouTube metrics, achieving higher average views (32,816 vs. 6,039) and likes (781 vs. 150) despite fewer videos. Website analysis reveals cosmeceuticals' stronger credibility and visibility, with greater recommendations from other sites (backlinks: 497,226 vs. 46,472), active endorsements (follow links: 483,646 vs. 43,284), and website visitor traffic (300,632 vs. 15,383), reflecting superior digital strategies. This research highlights social media's dual role as influencer and mirror of societal values. It also points to the rising participation of male consumers and the impact of cultural and emotional factors on preferences. The findings provide recommendations for culturally sensitive, emotionally resonant, and platform-specific marketing strategies and lay the foundation for innovation in consumer engagement and cross-cultural research.

Keywords: Aesthetic procedures, Topical cosmeceuticals, Social media influence, Consumer behaviour, Cross-cultural marketing





# ACOS24-O-002: Risks and Responsibilities: Addressing Medical Negligence in Aesthetic Medicine

### Genevieve Vanniasingham<sup>1\*</sup>

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The practice of aesthetic medicine by General Practitioners (GPs) in Malaysia has seen rapid growth, driven by increasing patient demand for non-invasive cosmetic treatments. However, this expansion brings significant legal and ethical responsibilities, particularly concerning patient safety and the risk of medical negligence. The Ministry of Health (MOH) and the Malaysian Medical Council (MMC) Guidelines, emphasise that aesthetic GPs must act in the best interest of their patients, ensuring that treatments are safe and evidence-based. Furthermore, GPs face significant challenges in ensuring that they obtain consent, adequately explain the risks of procedures, and manage complications when they arise. Failure to do so may lead to disciplinary action and/or litigation. This session aims to explore the regulatory framework governing aesthetic GPs in Malaysia, the legal risks associated with performing cosmetic treatments, and the importance of maintaining high professional standards. By examining recent cases and guidelines, the discussion will highlight best practices for GPs to mitigate risks and uphold their duty of care in aesthetic practice.

Keywords: Medicolegal, Healthcare, Negligence





# ACOS24-O-003: Exploring the Potential Applications of Polysaccharides Extracted from Plant Sources

### Suhaila Sujani<sup>1\*</sup>, Zahir Husain Kamari<sup>1</sup>, Abu Hurairah Darwisy Alias<sup>2</sup>, Muhammad Hasnun Md Yusoff<sup>2</sup>, Nur Qistina Abdul Razak<sup>2</sup>, Muhammad Hakimin Shafie<sup>2</sup>

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This study explores the unreported anti-hyperpigmentation effects and tyrosinase inhibitory mechanisms of polysaccharides derived from Azadirachta indica L., commonly known as neem leaves. This study aimed to optimize the extraction of neem leaves polysaccharides (NLP) using a microwave-assisted extraction method. By employing a Box–Behnken design, the optimum extraction parameters were determined, which include extraction time, solid-to-buffer ratio, and microwave power. The optimized parameters resulted in a high yield of polysaccharides with significant antihyperpigmentation and antioxidant activities. The quadratic regression equations derived from the experimental data serve as a highly accurate predictive model, with R<sup>2</sup> values ranging from 0.9706 to 0.9999. Under optimal conditions, the polysaccharides exhibited the following characteristics:  $7.62 \pm$ 0.22% extraction yield,  $86.16 \pm 0.19\%$  monophenolase inhibition activity,  $68.18 \pm 0.20\%$  diphenolase inhibition activity, 45.55 ± 0.29% 2,2-diphenyl-1-picrylhydrazyl (DPPH) free radical scavenging activity, and 0.47 ± 0.02 mM FeSO4 ferric reducing antioxidant power (FRAP) reducing capacity. Moreover, the NLP has a low molecular weight of  $28.15 \pm 0.32$  kDa, which is beneficial for skin treatment products due to faster solubilization in an aqueous environment and improved skin absorption. The observed tyrosinase inhibitory and antioxidant activities are primarily due to the polysaccharide fraction. In conclusion, polysaccharides extracted from neem leaves show promising potential as a therapeutic alternative for treating skin hyperpigmentation. This study provides valuable insights into the anti-hyperpigmentation properties of neem-derived polysaccharides and highlights their prospective applicability in dermatological treatments.

Keywords: Neem leaves, Polysaccharide, Anti-hyperpigmentation, Tyrosinase inhibitory, Antioxidant





# ACOS24-O-004: Assessing the Effectiveness and Safety of Topical Cysteamine in Treating Hyperpigmentation Disorders: A Case Series

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Hyperpigmentation disorders, including melasma, post-inflammatory hyperpigmentation (PIH), and other forms of dyschromia, are common dermatological concerns. Topical product formulated with cysteamine, a naturally occurring antioxidant has shown efficacy in treating hyperpigmentation in previous studies. This case series evaluates the efficacy and safety of a topical cysteamine-based product in treating hyperpigmentation disorders in eight patients. Eight patients (7 female, 1 male) with varying forms of hyperpigmentation were treated with a topical cysteamine-based cream. Retrospective clinical evaluations including visual assessment and patient-reported outcomes, were conducted pre & post treatment. By week 12, all patients demonstrated a reduction in hyperpigmentation. The most significant changes were observed in melasma and PIH patients. Patient-reported outcomes reflected satisfaction with the product's efficacy and tolerability. Mild irritation was reported as a side effect and no severe adverse effects were noted. Topical cysteamine product demonstrated efficacy in reducing hyperpigmentation in this case series, with a favourable safety profile. Further studies with larger cohorts and long-term follow-up are warranted to validate these findings.

Keywords: Cysteamine, Hyperpigmentation, Melasma, Post-inflammatory hyperpigmentation, Topical treatment





### **POSTER PRESENTATION ABSTRACT**

### ACOS24-P-001: Severe Case of Psoriasis Vulgaris in a 57-Years-Old Indonesian Woman with a History of Relapsed Psoriasis.

# Muh Nazir Lathif<sup>1\*</sup>, Elisabet Rumiris Sirait<sup>1</sup>, Fadhilah Isaac Kartika<sup>2</sup>, Stefani Dyah Monisa Asmarani Hernowo<sup>3</sup>, Hafiidh Ilham Kharisma<sup>4</sup>

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Psoriasis is a chronic inflammatory skin disease characterised by changes in epidermal cell growth and differentiation. The lesions are circumscribed squamous erythematous plaques, layered with silvery white scales usually localised on the elbows, knees, scalp or cover most of the body. It is chronic because 17% - 55% of cases relapse over varying periods of time, which is closely related to stress factors as well as genetics. In this case, we will report a case of severe psoriasis vulgaris. A 57-yearold, Indonesian woman, married, came to UNS Hospital, Solo, with complaints of itchy red rashes on both hands, body, back and both legs. The skin lesions appeared at the same time when the patient's husband died and worsened if the patient felt sad. A history of similar complaints occurred in 2014 and 2018, and has been experienced by the patient's father. The patient was a private employee, fully conscious and vital signs were within normal limits. On physical examination, the patient was found to have round well-defined erythema plaques combined with thick squama, hypopigmented papules, pustules to erythema plaques scattered on the patient's body, more than 30% BSA (body surface area). Moreover, Beau's line on the left thumbnail was spotted. Additionally, a wax spot phenomenon and positive Auspitz sign were found. A diagnosis of severe Psoriasis Vulgaris was then made. Medical management included oral Methotrexate and Cetirizine, with topical Dexamethasone 0.01% and phototherapy. Information about the disease condition and prevention was also delivered as nonmedical therapy. The existing treatments aim to suppress symptoms, although not a complete cure.

Keywords: Psoriasis vulgaris, Severe, Genetic, Relapse, Auspitz





# ACOS24-P-002: Amplifying the Antioxidant Efficacy of Coenzyme Q10 Through a Novel Dual-Lipid Delivery System

### Suhaila Sujani<sup>2\*</sup>, Nadirah Abd Rahim<sup>1</sup>, Zahir Hussain Kamari<sup>2</sup>, Nor Hasmaliana Abdul Manas<sup>1</sup>

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Free radicals, generated as byproducts of cellular metabolism or through exposure to environmental stressors, pose a significant risk to cellular integrity by inducing oxidative stress. Oxidative stress has been implicated in the pathogenesis of numerous diseases, including cardiovascular disorders, neurodegenerative conditions, and inflammatory processes. Coenzyme Q10 (CoQ10), an endogenous lipid-soluble antioxidant, plays a crucial role in mitochondrial electron transport and serves as a potent scavenger of free radicals. However, its therapeutic potential is hindered by limited bioavailability. The limited bioavailability of CoQ10 poses a significant challenge in harnessing its potential health benefits, particularly in addressing heart diseases. Current formulations struggle with efficient absorption of this highly hydrophobic molecule, impacting its effectiveness. Additionally, the prevalent use of synthetic solvents in formulations contradicts the growing consumer demand for natural products. To address these issues, this study aims to develop a novel dual lipid delivery system of CoQ10 supplement utilizing virgin olive oil and virgin coconut oil as natural lipid carriers. This study explores a novel approach to amplify the antioxidant potential of CoQ10 by utilizing a dual-lipid delivery system as well as its stability. The antioxidant efficacy of the dual-lipid delivery system of CoQ10 was evaluated through 2,2-diphenyl-1-picrylhydrazyl (DPPH) radical scavenging assay. The antioxidant assays revealed a significant twofold improvement in scavenging DPPH radicals compared to single lipid CoQ10 formulations. The inclusion of dual lipids also improves the protection of antioxidant activities from thermal degradation (increase by 12.8% at 60°C) and light degradation (increase by 1.93% at room temperature). This study presents a promising strategy to enhance the antioxidant efficacy of CoQ10 through a dual-lipid delivery system.

Keywords: Coenzyme Q10, Antioxidant, Dual-lipid delivery system





# ACOS24-P-003: Hyaluronic Acid Filler-Induced Facial Artery Occlusion. Two Case Reports, Overview, Treatment, and Recommendations

### Brendon Khye Chiat Chong 1\*

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Hyaluronic acid (HA) filler treatment is gaining popularity worldwide. As more filler treatments are performed, filler related complications are also rising. Vascular occlusions following HA filler is a rare complication which can cause significant morbidity to patients if it is not treated early. Here, we describe two separate patients who developed intravascular occlusion of the facial artery following HA filler treatment. Both patients were treated with HA filler over the nasolabial fold complicated with intravascular injection. The first patient was treated within 1 hour while the second patient was treated within 16 hours. The first patient developed skin blanching and was immediately treated with hyaluronidase. Second patient was treated with hyaluronidase with partial resolution of symptoms and required a second session of hyaluronidase the next day for complete resolution of symptoms. In both cases, hyaluronidase was flooded around the affected area and some amounts were injected into the affected vessel. Both patients were treated successfully without any long-term sequelae. Vascular occlusion can cause severe adverse events and if not treated early, can lead to serious long-term sequelae. Therefore, it is important for physicians to look out for signs and symptoms of intravascular occlusion and initiate treatment as soon as possible. Early and complete dissolution of the offending HA determines the success of hyaluronidase treatment.

Keywords: Hyaluronic acid, Complications, Vascular occlusion, Hyaluronidase





# ACOS24-P-004: Lower Face Contouring Using Hyaluronic Acid Filler and MD Codes: A Case Study on Non-surgical Correction of Chin Retrusion

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Chin retrusion is a lower face condition that attributes to poor jawline definition and facial imbalance. It has negative emotional impact including looking sad and reduced self-esteem. This case study explores the use of hyaluronic acid filler for lower face contouring in a patient with chin retrusion, employing the MD Codes technique developed by Dr. Mauricio de Maio. Objectives: The primary aim of the treatment was to improve chin projection and jawline contour, restore facial harmony, and enhance the patient's confidence. A key focus was on achieving these results with a safe technique, guided by a thorough understanding of the anatomy of the lower face, including bone structure, blood vessels, and nerve pathways. Methodology: A 34-year-old female with chin retrusion underwent treatment using hyaluronic acid filler. The applied MD Codes method were C1, C2, C6, Jw4, JW5 to target specific parts of mandible for chin projection and jawline contouring. A high G prime filler was injected using both needle and cannula technique to avoid critical structures of the mental foramen and facial artery, ensuring precision, safety and comfort. Results: The treatment produced significant improvements in chin projection and jawline definition, with enhanced facial symmetry. The patient reported improved self-confidence and satisfaction with the natural, balanced outcome. There were minimal side effects, limited to minor swelling. The use of MD Codes allowed for precise filler placement, enhancing the patient's aesthetic outcome while maintaining safety through anatomical knowledge. Filler with the right rheological property ensures outcome longevity. Conclusion: Hyaluronic acid filler treatment, guided by MD Codes and in-depth anatomical understanding, successfully addressed the physical and emotional concerns associated with chin retrusion. The procedure yielded a natural, aesthetically pleasing result with no complications.

Keywords: Chin retrusion, Hyaluronic acid filler





# ACOS24-P-005: The Safety and Efficacy of Q-switched Nd:YAG 1064nm Laser and Pulsed Dye 595nm Laser Combined with High-Intensity Focused Ultrasound (HIFU) in the Treatment of Melasma among the Malaysian Population

Lim Wen Xuan<sup>1\*</sup>, Natalie Kwong Zhu Wen<sup>2</sup>, Tay Su Yee<sup>3</sup>, Chong Yi Shan<sup>4</sup>, Lim Jia Ying<sup>5</sup>, Nicole Ng I<sup>6</sup>, Adibah Hanim Ismail@Daud<sup>7,8</sup>

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Melasma is a prevalent acquired hyperpigmentation disorder, usually affecting individuals with Fitzpatrick skin types IV to VI. This study aims to evaluate the efficacy and safety of Q-switched Nd:YAG 1064nm laser and pulsed dye 595nm laser treatment combined with high-intensity focused ultrasound (HIFU) in treating melasma among the Malaysian population. A retrospective analysis was conducted on 50 Malaysian patients with melasma, aged 30 to 70 years, who underwent treatment from January 2023 to February 2024. Patients were divided into two groups: Group 1 received 10 sessions of laser treatment alone, while Group 2 received the same 10 sessions of laser treatment combined with 3 sessions of high-intensity focused ultrasound (HIFU). Treatment outcomes were assessed using the modified Melasma Area and Severity Index (mMASI) scores at baseline, after five sessions, and after ten sessions. Statistical analyses, including repeated measures Analysis of Variance (ANOVA), were performed to compare the outcomes between both groups. Both treatment groups demonstrated significant reductions in mMASI scores over the treatment period. Group 1 (laser only) showed a decrease in mMASI score from 6.00 to 4.22, while Group 2 (laser combined with HIFU) showed a decrease in mMASI score from 5.91 to 4.20. However, the difference in efficacy between the two groups was not statistically significant (p > 0.05). In conclusion, our study shows that Q-switched Nd:YAG 1064nm laser and pulsed dye 595nm laser combined with highintensity focused ultrasound (HIFU) appears to be a safe and effective treatment for melasma in patients with Fitzpatrick skin types III to IV. While both treatment modalities resulted in significant improvement in mMASI scores, further research with larger sample size is warranted to confirm these findings and explore the potential benefits of high-intensity focused ultrasound (HIFU) as an adjunct therapy.

Keywords: Melasma, Laser, Q-switched Nd:YAG 1064nm laser, Pulsed dye 595nm laser, Highintensity focused ultrasound (HIFU).





# ACOS24-P-006: Safety and Efficacy of High-Intensity Focused Ultrasound and Monopolar Radiofrequency Combination Therapy for Skin Tightening: A Retrospective Study in Malaysia

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High-intensity focused ultrasound (HIFU) and monopolar radiofrequency (MRF) are common treatment modalities that have shown significant results in skin tightening. Nevertheless, the novel combination of these two treatments is new to the Malaysian landscape. Thus, this study aims to investigate the safety and efficacy of this novel combination treatment for the Malaysian population. This retrospective study included data on HIFU and MRF combination therapy for skin tightening collected from an aesthetic clinic in Johor Bahru, Malaysia from June 2018 to May 2021. Efficacy was assessed using the Global Aesthetic Improvement Scale (GAIS) and Glogau classification, while the safety of the treatment was analysed using pain scores and adverse events (AEs). A total of 56 patients with a mean age of 47.7 years old (SD 10.00) were included in this study. The majority of the patients had Fitzpatrick skin types III and IV. Most of the patients were Chinese, followed by Malay, Indian and others. Most patients (96.4%) showed clinically significant improvement in skin tightening after treatment, with 15 patients scoring 1 (very much improved) and 39 scoring 2 (improved). All patients reported transient mild erythema, with no serious AEs, such as burn, swelling, numbness or muscle weakness. Among the patients, 80% reported a pain score of 5, while 10% reported pain scores of 4 and 6. Combining HIFU with MRF therapy improved GAIS scores by 96.4%, indicating a secure and efficient skin-tightening method. Transient erythema was shown to be the most common side effect of this combination.

Keywords: High-intensity focused ultrasound, Monopolar radiofrequency, GAIS score, HIFU/MRF combination therapy, Skin tightening





# ACOS24-P-007: The Efficacy of Combination Topical Hydroquinone with Oral Tranexamic Acid, Q-Switched Laser Monotherapy and the Combination of Such in the Treatment of Melasma Among Malaysian Males and Females with Fitzpatrick Skin Type III-IV

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Melasma is a skin condition typically occurring in the Asian population amongst the middle-aged group. Hence, this study aimed to evaluate the efficacy of oral tranexamic acid and topical hydroquinone combination therapy, monotherapy with the 1064nm Q-switched Nd: YAG laser, and the combination of both therapies in treating melasma among Malaysian males and females with Fitzpatrick skin types III-IV. A quasi-experimental, unblinded study was done among 30 participants. Participants were divided into three groups and treated over three months. Group 1 received oral Tranexamic acid with 4% topical hydroquinone; Group 2 was treated with laser only, and Group 3 was treated with a combination of those three modalities. The researcher collected the modified Melasma Area and Severity Index (mMASI) score and image pigmentation score using the JANUS-III machine at each follow-up. The mean mMASI score was  $4.80 \pm 3.17$  for Group 1,  $4.96 \pm 2.10$  for Group 2, and  $7.43 \pm 4.15$  for Group 3. Meanwhile, the mean UV spot for Group 1 was  $-1.22 \pm 16.75$ ,  $2.09 \pm 11.03$  for Group 2 and -11.27 ± 5.83 for Group 3 respectively. The mean PL spots were 12.00 ± 12.073 for Group 1, 21.82  $\pm$  10.19 for Group 2 and 9.36  $\pm$  7.88 for Group 3. Both mean mMASI score and mean UV spot showed significant improvement after three months of treatment with a p-value <0.05. However, the mean PL spot showed the most significant improvement with a p-value <0.05. The study found that 1064nm Q- switched Nd: YAG laser monotherapy is a better treatment in treating melasma among Malaysian with Fitzpatrick skin types III-IV.

Keywords: Melasma, Oral tranexamic acid, Topical hydroquinone, Q-switched Nd: YAG laser





# ACOS24-P-008: Medical Aesthetic Awareness Among Public in Malaysia and The Factors That May Influence It: A Cross-Sectional Study

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Medical aesthetic practice is growing rapidly in Malaysia due to rising market demand, yet public understanding of these practices remains limited. This study evaluated the awareness and attitudes towards medical aesthetics among Malaysians. A cross-sectional survey was conducted among individuals aged > 18 years old in Malaysia from December 2021 to May 2022. The survey was distributed both online and in public settings. The survey comprised of respondents' sociodemographic, perception of physical attractiveness, knowledge and attitude towards medical aesthetic practices. The factors influencing respondents' attitudes towards medical aesthetic practices in the country were analysed using binary logistic regression, with the significance level set at P<0.05. A total of 382 respondents participated in this study with an average age of  $30.81 (\pm 9.38)$  years, ranging from 18 to 68 years. The majority were women (77.5%), Malay (53.7%) and Muslim (57.1%). Although most respondents had no prior experience in medical aesthetic treatment (68.1%), 76.2% of respondents demonstrated good knowledge and 70.2% had a positive attitude towards these services. Additionally, 53.9% of the respondents highly valued the importance of physical attractiveness. The Buddhists and Hindus exhibited more positive attitude than the Muslims. Conversely, those who placed higher importance on physical attractiveness were 0.5 times less likely to develop a positive attitude towards medical aesthetic services. In conclusion, despite limited experience in medical aesthetic treatments and practice, most Malaysians possess good knowledge and positive attitudes towards medical aesthetics, indicating a growing interest and potential willingness to consider these services for enhancing their appearance.

Keywords: Awareness, Malaysia, Medical aesthetics, Physical attractiveness, Survey





# ACOS24-P-009: Evaluating the Antimicrobial Potential of Pyroligneous Acid from *Rhizophora apiculata* against *Aspergillus niger* and *Candida albicans* for Disinfectant and Antiseptic Applications

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The rising demand for natural antimicrobial agents in cosmeceuticals and aesthetic products has prompted research into alternatives to synthetic disinfectant and antiseptic. This study investigates the antimicrobial efficacy of pyroligneous acid, derived from *Rhizophora apiculata*, against *Aspergillus niger* and *Candida albicans*, pathogens commonly found in personal care and cosmetic formulations. Method: The study employed the EN 1275 quantitative suspension test to evaluate the fungicidal and yeasticidal effectiveness of pyroligneous acid over various contact times. The microbial reduction was assessed through colony-forming units per millilitre (CFU/ml) and log reductions, quantifying the reduction in pathogen viability over time. Results and Discussion: Results indicated that pyroligneous acid achieved significant fungicidal activity, with >99.999% reduction in *Aspergillus niger* ATCC 16404 and *Candida albicans* ATC 10231 within a 3-minute contact time. The findings underscore pyroligneous acid's high efficacy as a natural antimicrobial agent, showcasing potential for integration into cosmetic products to mitigate contamination risks. Conclusion: Pyroligneous acid presents a viable, eco-friendly solution for enhancing the safety profile of aesthetic and cosmeceutical products. This study contributes to advancing sustainable preservation methods within the personal care industry.

Keywords: Pyroligneous acid, Antimicrobial agent, Cosmeceuticals, Natural disinfectant and antiseptic, EN 1275.





# ACOS24P-010: Prevalence, Assessment and Underdiagnosed Impact of Body Dysmorphic Syndrome (BDD) in Cosmetic and Aesthetic Clinical Practice: A Narrative Review

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Body Dysmorphic Disorder (BDD) is a high-risk psychological condition that significantly affects patients but is often overlooked. This review focuses on BDD, emphasizing the role of cosmetic and clinical practitioners in identifying BDD patients among those seeking aesthetic treatments and examining the disorder's impact on practice. BDD patients frequently appear in primary care and dermatology because they may not see the need for psychiatric help. Many pursue cosmetic treatments, which often fail to relieve their distress, leading to temporary satisfaction followed by dissatisfaction and blame toward providers. Patients with BDD can display aggressive behaviours, posing risks to cosmetic practitioners through verbal, physical, and legal threats. Thus, increasing awareness and understanding of BDD among clinicians is essential for effective care and to prevent unnecessary financial, physical, and psychological burdens from inappropriate procedures.

Keywords: Aesthetic and cosmetic clinical practice, Body dysmorphic disorders, Psychological health





## ACOS24P-011: Facial Aesthetic Preferences Among Ethnicity in Malaysia

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Malaysians' diverse ethnicities shape unique aesthetic features, with beauty perceptions influenced by culture and personal experiences. This study explores facial aesthetic preferences among Malaysian women across different ethnic groups. A questionnaire was administered to 290 women, assessing various facial dimensions using edited images of Asian models. Most participants were Malay (71.0%), averaging 31.6 years; 66.9% had not undergone aesthetic procedures. Preferences for oval facial shape and nasal width-length ratio varied by ethnicity, with significant associations found (p<0.05). Ethnic background significantly influences preferences for facial aesthetics, emphasizing the need for tailored approaches in aesthetic practices.

Keywords: Aesthetics, Ethnicity, Female, Malaysia

