

Aesthetic Medicine: towards defining its own clinical role and necessary discipline

Emanuele Bartoletti¹, Giorgia Viola Lacasella², Karidia Karaboue³, Loredana Cavalieri⁴

¹Isola Tiberina- Gemelli Isola Hospital, Rome; ²Sapienza University of Rome; ³University of Campania; ⁴Plastic Surgery Department, S. Camillo-Forlanini Hospital, Rome

To the editor,

Aesthetic Medicine is a medical discipline whose aim is to promote the overall health of individuals, understood as psychophysical well-being linked to the concept of living well with oneself at any age. The construction of this balance is achieved through a program of social, preventive, curative, and rehabilitative medicine.

“Beauty” is conceived as an expression of the individual’s “health”. In the editorial of the first issue of the scientific journal “Aesthetic Medicine”¹, the official organ of the Italian Society of Aesthetic Medicine, the first definition of Aesthetic Medicine is published:

“Aesthetic Medicine is a new medical branch whose importance has rapidly increased in recent years across all its specialized sectors. Aesthetic Medicine carries out a program of social, preventive, curative, and rehabilitative medicine in service of the community. Its goal is the construction and reconstruction of individual psychophysical balance. The essential points of this important field of action are:

- The treatment of physical defects and constitutional aesthetic alterations;
- The treatment of the aesthetic sequelae of diseases and traumatic accidents;
- The prevention of aging and possible psychophysical disability resulting from it;
- Constant education, to enable everyone to have a rational management of their own biological heritage through programs of mental, physical, and dietary hygiene”.

To this definition, we must then add concepts that have become characteristic of Aesthetic Medicine in its evolution over time:

- Aesthetic Medicine deals with the identification and treatment of all pathologies related to aesthetic imperfections, which, if neglected, can promote the development of secondary or even tertiary pathologies, the prevention and treatment of which are solely within the medical competence.
- Therapies exclusively aimed at treating body dysmorphism can be considered permissible only if they are suitable for treating the psychological impact.
- All therapeutic procedures in Aesthetic Medicine are preceded by a diagnostic assessment that includes medical history collection and morpho-functional evaluations.
- The aims of Aesthetic Medicine fully fall within the patient’s right to psychophysical well-being and to the maintenance of their quality of life, also in relation to healthspan, which cannot ignore the current values of one’s lifespan.

As anticipated, one of the fundamental cornerstones of this medical discipline is, as in all specialized branches, the diagnostic approach carried out during the initial visit, which makes use of the Aesthetic Medicine Check-up. Through this, it is possible to conduct a diagnostic assessment from the perspective of Aesthetic Medicine, establish a comprehensive preventive program, and create a personalized therapeutic plan.

The Aesthetic Medicine Check-up includes a traditional medical history examination extended to include information relevant to the medical-aesthetic diagnosis of the patient, a general physical examination, and a series of morpho-functional assessments²⁻⁴.

The extension of the traditional medical history examination (including family, physiological, remote pathological, and recent pathological history) will investigate hereditary diseases present in the family with an aesthetic involvement, the patient's dietary habits (weight history, number of daily meals, food preferences, liquids ingested, alcohol consumption, weekly food diary preparation, where, when, how, and with whom meals are consumed); physical activity (type, frequency, intensity, location); it will investigate the psychological sphere and socio-environmental factors (mood, memory, concentration, ideational associations, stimuli, and sexual activity, quality of socio-occupational integration); skin pathologies or discomforts (presence or absence of skin discomforts, type and duration of sun exposure); cutaneous cosmetic management (cleansing, hydration protection, sebum substitution protection, sun protection, use of cosmeceutical special products, makeup). The possible effects of concomitant treatments will be investigated, owing to the effects many drugs or previous aesthetic medicine treatment have on physical appearance or because they can interfere with new indicated treatments.

The general physical examination includes cardiac and thoracic auscultation, as well as blood pressure measurement⁵.

The Aesthetic Medicine visit also relies on a series of evaluations that characterize its uniqueness and are necessary to make a diagnosis and implement a prevention and maintenance program that allows for the comprehensive psychophysical-aesthetic well-being of the patient to be addressed.

Psychological assessment: it involves a series of tests (under validation process) that enable the definition of the patient's general psychological profile, highlighting the emotional response provoked by the aesthetic issue under examination and its socio-environmental repercussions⁶.

Morpho-anthropometric assessment: a series of body measurements are taken using appropriate tools. Common measurements include:

Height: Measures the subject's height while standing upright with their back straight and feet together.

Weight: Measures the subject's weight using a calibrated scale.

Waist circumference: Measures the circumference of the waist at the level of the navel.

Wrist circumference: Measures the circumference of the dominant wrist.

Arm circumference: Measures the circumference of the arm at the midpoint between the shoulder and the elbow.

Thigh circumference: Measures the circumference of the thigh at the midpoint between the hip and the knee.

Skinfold measurements: Using a caliper, measures the thickness of skinfolds at various points on the body (biceps, triceps, subscapular, abdominal).

Once the data is collected, an analysis of the measurements is performed by comparing the results with reference tables to assess the range of normality or using specific formulas to calculate parameters such as body mass index (BMI) or body fat percentage⁷. Since some individuals feature normal body weight despite a biochemical phenotype suggestive of the inflammatory changes occurring in metabolic diseases ("normal weight obese syndrome"⁸) and some individuals feature high BMI despite being metabolically healthy, weight is not considered as an "absolute" measure but should be investigated with bioimpedance analysis⁹.

Postural assessment: Through direct clinical observation and with the help of a podoscope, possible alterations in plantar support and body position concerning the support planes in both static and dynamic situations can be highlighted¹⁰.

Vascular evaluation of the lower limbs: through medical examination and the use of acoustic Doppler, it allows for the detection of states of venous circulatory insufficiency in the lower limbs, the severity of which may require more accurate specialist investigation^{11,12}.

Ultrasound evaluation of the hypodermis: it is performed with a 7.5 MHz probe. It represents an essential investigation for the differential diagnosis between localized adiposity and edematofibrosclerotic panniculopathy (so-called “cellulitis”), as well as for assessing the stage of the latter¹³⁻¹⁷.

Cutaneous evaluation: Through an objective examination using cold light and Wood’s light, as well as measurements with specific equipment developed in dermatological research laboratories or the cosmetology industry, aimed at assessing certain skin parameters such as corneometry, sebumetry, pH, sensitivity, and dermographism, a diagnosis of biotype (normal, seborrheic, dehydrated, hypolipidic, sensitive skin), phototype classification, precise functional balance, degree of skin aging, and skin monitoring over time and in relation to prescribed therapies can be outlined¹⁸⁻²⁰.

Hematological and biochemical assessment: ultimately, routine and targeted hematological and biochemical tests will be prescribed to the patient based on any clinical suspicion.

The Aesthetic Medicine visit highlights possible alterations and/or dysfunctions of various organs that require further diagnostic investigation by different specialists. This aspect amplifies the interdisciplinary nature, as well as the high social value of this medical branch, which, if practiced correctly, can uncover previously undiagnosed pathologies. Preventive-corrective therapies in Aesthetic Medicine only make use of high-quality, clinically and scientifically experimented technologies, biologically compatible devices, drugs, and regenerative medicine²¹. The increasing interest in this discipline among both physicians and patients makes it a continuously evolving field. This underscores the need for a regulatory framework for Aesthetic Medicine, including aspects of professional responsibility. In this context, it is undeniable that a lack of legal and institutional framework risks creating confusion among patients and may also impact the safety of care²².

Current challenges within the field of AM include a lack of global uniformity concerning the education of AM specialists, an increasing number of physicians practicing AM with diverse training backgrounds, the spread of AM being practiced outside of medical practice or hospital settings, and the influence of social

media where the success is modelled and dictated by the identification of a youthful appearance). By the field of action enriched by technologies that aim not only at enhancement per se but also at the preservation and regeneration of tissues, it is necessary to establish an active multidisciplinary discussion on the definition of shared ethical limits²³.

It is important to define the general outlines of legal responsibility, with the aim of deepening the various phases of the medicolegal study in the field of Aesthetic Medicine. It is a priority to highlight concepts such as the additional and necessary competencies of the healthcare provider, safety regulations, informed consent of the patient, and the performance of medical procedures aligned with specific guidelines^{24,25}.

References

1. Bartoletti CA. Editoriale. La Medicina Estetica, 1977.
2. Grüne S. Anamnesis and clinical examination. Dtsch Med Wochenschr. 2016; 141(1):24-7.
3. Moßhammer D, Graf J, Joos S, Hertkorn R. Physical examination in undergraduate medical education in the field of general practice - a scoping review. BMC Med Educ. 2017; 17(1):230.
4. Mohammed KA. Clinical examination nowadays. The Lancet. 2016; 388(10044):559-560.
5. Artandi MK, Stewart RW. The Outpatient Physical Examination. Med Clin North Am. 2018; 102(3):465-473.
6. Sellbom M. The MMPI-2-Restructured Form (MMPI-2-RF): Assessment of Personality and Psychopathology in the Twenty-First Century. Annu Rev Clin Psychol. 2019; 15:149-177.
7. Warriar V, Krishan K, Shedge R, Kanchan T. Height Assessment. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan. 2023 Jul 25.
8. Franco LP, Morais CC, Cominetti C. Normal-weight obesity syndrome: diagnosis, prevalence, and clinical implications. Nutr Rev. 2016; 74(9):558-570.
9. Mialich M, Jmf S, Jordao AA. Analysis of body composition: A critical review of the use of bioelectrical impedance analysis. Int J Clin Nutr. 2014; 2(1):1-10.
10. Rosário JL. A review of the utilization of baropodometry in postural assessment. J Bodyw Mov Ther. 2014; 18(2):215-9.
11. Tansey EA, Montgomery LEA, Quinn JG, Roe SM, Johnson CD. Understanding basic vein physiology and venous blood pressure through simple physical assessments. Adv Physiol Educ. 2019; 43(3):423-429.

12. Ermini L, Ferraresi C, De Benedictis C, Roatta S. Objective Assessment of Venous Pulse Wave Velocity in Healthy Humans. *Ultrasound Med Biol*. 2020; 46(3):849-854.
13. Naumova R, Belokova R, Stoev Ts, Naumov N. An echographic assessment of fatty tissue distribution and its relation to metabolic complications in patients with obesity. *Vutr Boles*. 1990; 29(4):64-9.
14. Leleu C, Cotrel C. Body composition in young standard-breds in training: relationships to body condition score, physiological and locomotor variables during exercise. *Equine Vet J Suppl*. 2006; (36):98-101.
15. Giannini S, Ceccarelli M, Bartoletti CA. Aspetti ecografici del tessuto adiposo sottocutaneo normale nelle aree di studio della pannicolopatia edematofibrosclerotica. *La Medicina Estetica*. 1992; 16 (1/2):1-5.
16. Giannini S, Ceccarelli M, Valeriani M, Bartoletti CA. La metodica ecografica come screening nello studio della pannicolopatia edematofibrosclerotica. Quadri di semeiotica ecografica. *La Medicina Estetica*. 1993; 17(4):267-270.
17. Giannini S, Ceccarelli M, Valeriani M, Bartoletti CA. Quadri ecografici ed aspetti anatomo-patologici della pannicolopatia edematofibrosclerotica. *La Medicina Estetica*. 1994 18,2,123-126
18. Ramette G, Bartoletti CA. Check-up cutaneo in Medicina Estetica. *La Medicina Estetica*. 1983; 7(2):65-70.
19. Bartoletti CA, Romano MC. Utilità del check-up cutaneo nella prevenzione dell'invecchiamento della pelle, in Botiglioni F., De Aloysio (Eds): *Il climaterio femminile: esperienza italiana di un decennio*. Atti del 3° Congresso della Società Italiana per la Menopausa. Monduzzi Editore Bologna, 1988, II-815.
20. Bartoletti CA. Dossier dermocosmetologico per un check-up cutaneo secondo il protocollo di Bartoletti e Ramette (Mediskin® check-up). *La Medicina Estetica*. 1989; 13(1):1-14.
21. Russo A, Reginelli A, Lacasella GV, et al. Clinical Application of Ultra-High-Frequency Ultrasound. *J Pers Med*. 2022; 12(10):1733.
22. Karaboue M, Casella GL, Karaboue K, Cipolloni L, Bosco MA, de Simone S. Il dibattito in Bioetica Health and disease: a multicultural dichotomy. *Medicina e Morale*. 2023; 72(2):207-212
23. da Prato EB, Cartier H, Margara A, et al. The ethical foundations of patient-centered care in aesthetic medicine. *Philos Ethics Humanit Med*. 2024; 19(1):1.
24. Karaboue M, Massaro M, Karaboue K. When nutrition becomes artificial: a bioethical issue. *Progress in Nutrition*. 2023; 25(2):2023033.
25. Karaboue MAA, Massaro M, Lacasella G. Artificial nutrition and hydration: bioethical and biolegal profiles. *Progress in Nutrition*. 2023; 25(2):2023034.

Correspondence

Received: 19 March 2024

Accepted: 25 March 2024

Emanuele Bartoletti, MD

Isola Tiberina-Gemelli Isola Hospital, Rome

E-mail: emanuele.bartoletti.fw@fbf-isola.it