



The Importance of Evidence-based Medicine (EBM) in Aesthetic

Evidence Based Medicine (EBM) is widely used in many healthcare fields, which is indicative of its broad influence. EBM is a crucial instrument for promoting social justice. It has the potential to be a great equaliser if used correctly, aiming to provide patients in different areas of the world with equitable care. EBM also has a significant impact on policy-making, and politicians frequently cite their use of research data in support of the legitimacy of their actions.

A wide range of products and procedures had been introduced into the market for aesthetic purposes ranging from skincare products such as serum, moisturizer, eye cream to skin rejuvenation procedures such as skin tightening, pigment removal, anti-wrinkle treatment, acne scar treatment, skin whitening and filler, breast enlargement, cellulite removal, lip enhancement, facelift and several others. However, many of these products and procedures claim to have good aesthetic effects but it is not supported by good scientific evidence and may contain harmful or prohibited ingredients. This has been considered to be a growing problem that needs to be addressed immediately as it involves safety issues of the patients and consumers by causing various complications due to the lack of evidence of the procedures or treatments.

General Public in Malaysia still lack of awareness in the importance of EBM in aesthetic medicine. Hardly the patient will ask on the effectiveness and safety based on published clinical trial for the specific treatment. Most of the time, aesthetic practitioners with the best

convincing talk will gain the most from this situation.

There is a need to implement a guideline to ensure the safety of the aesthetics products or procedures. One of the ways to achieve this is through evidence-based medicine (EBM). Mountokalakis (2006)¹ stated that, a physician needs to “rely on actual evidence rather than on conclusions resulting solely from reasoning, because arguments in the form of idle words are erroneous and can be easily refuted”.

EBM has been defined as the conscientious, explicit and judicious use of current best evidence in making decisions related to individual patient care [2]. EBM is important as it provides the most effective care based on available evidence for patients in order to improve the patient’s outcomes thus protecting the patients from ineffective, unnecessary or potentially harmful treatments or procedures. EBM has existed since centuries ago. It was recorded that a person named Ben Cao Tu Jing had suggested finding two people and giving ginseng to one of them. Then, they were asked to run and he said the one who didn’t consume ginseng will have shortness of breath first [3]. This is one of the examples of the ancient anecdotal form of EBM.

There are five level scale of EBM which is:

Level I: double blind randomized controlled trial (DBRCTs)

Level II: large prospective of cohort studies with RCTs

Level III: retrospective case-control cohort studies and nonrandomized clinical studies

Level IV: case studies without control group

Level V: expert opinion.

Among the scale, level I EBM provides the most reliable evidence and has highest validity due to detailed examination of the cause-and-effect relationship between intervention and outcome. Meanwhile expert opinion is assigned to level V because it was not based on scientific evidence but rather was influenced by prestige and persuasion [4,5]. This five-level scale was created based on the strength and impact of various investigations and it may help clinicians to identify the best evidence for prevention, diagnosis, treatment, and causation to achieve the best outcomes for the patients [4].

We can create awareness about EBM by using available and effective platform to reach out to general public. They should understand the significant of clinical trial in every aesthetic services available. In fact, general public can be the external force to encourage aesthetic practitioners and researcher to conduct more high impact clinical trial in this field. This eventually will eliminate “testimonial” based

outcome in promoting aesthetic services and adapting to the EBM principle.

REFERENCE

1. Mountokalakis TD. Hippocrates and the essence of evidence-based medicine. *Hosp Chron.* 2006; 1:7-8.
2. Sackett DL, Rosenberg WM, Gray JA, Haynes RB, Richardson WS. Evidence based medicine: What it is and what it isn't. *BMJ* 1996; 312:71-2
3. Cheung MC, Allan BJ, Yang R, Thaller SR. Evidence-based medicine and its role in plastic surgery. *Journal of Craniofacial Surgery.* 2011 Mar 1;22(2):385-7.
4. Farrokhyar F, Karanicolas PJ, Thoma A, Simunovic M, Bhandari M, Devereaux PJ, Anvari M, Adili A, Guyatt G. Randomized controlled trials of surgical interventions. *Annals of surgery.* 2010 Mar 1;251(3):409-16.
5. Swanson JA, Schmitz D, Chung KC. How to practice evidence-based medicine. *Plastic and reconstructive surgery.* 2010 Jul;126(1):286.
6. Mohd Shahrin U. The Naked Truth About Aesthetic Treatment: Unlocking the Secret Codes. In EMS Publication. 2020.

Dr Ungku Mohd Shahrin b Mohd Zaman, MD

Editor-in-Chief