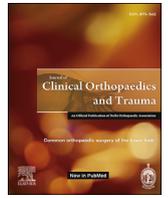




Contents lists available at ScienceDirect

Journal of Clinical Orthopaedics and Trauma

journal homepage: www.elsevier.com/locate/jcot

Editorial

Orthoplastic surgery: Need of the hour



The “Orthoplastic surgery” is a name given to the partnership of Orthopaedic and Plastic surgery. The origin of this new science comes from Plato aphorism “Necessity is the mother of invention”,¹ which helped to evolve many innovative surgical approaches. The development of Orthoplastic surgery came in existence much before the surgical specialization, and its foundation was laid by many giants like Tagliacozzi, Velpau, Pare, Dupuytren, and Malgaigne who treated composite defects all over the body by combining Orthopaedic and Plastic surgery principles. One of the earliest modern Orthoplastic surgery collaboration was between Lane and Gillies in 1919.² They emphasized that the concept of the Orthoplastic approach brings together the strengths of Orthopaedic surgery of stable bone reconstruction and well vascularized coverage by Plastic surgery to maximize outcomes in extremity reconstruction. The advent of microsurgery and development of operating microscope gave a boost to this concept of Orthoplastic limb salvage surgery.³ Meanwhile, the use of a variety of flaps (muscle, fasciocutaneous, perforator, and vascularized bone) has made an impact on the salvage of the mangled extremities.

The modern Orthoplastic surgery is based on the strengths of both Orthopaedic and Plastic surgery applied to solve the clinical problems for the benefit of patients. This combined Orthoplastic approach is appropriate for patients with extremities trauma and cancers for limb salvage. The benefits would be in terms of quicker bone union, more durable soft tissue coverage, less pain, and less chance of revision surgeries. It also leads to better function, fewer complications, shorter hospital stay, and higher patient satisfaction. The key to the success of this concept is the involvement of both the team right from day one for evaluation and to make proper long term plan of management.^{4,5}

The origin of Plastic surgery had its roots more than 4000 years in India, back to the Indus River Civilization. Sushruta (600 B.C.), one of the earliest surgeons, is believed to be the first individual to describe basic principles of plastic surgery in his famous ancient treatise ‘Sushruta Samhita.’ Plastic surgery originated to a date much earlier than the formation of its linguistic root, and the word ‘plastic’ is derived from the Greek ‘plastikos’, meaning “to mold” or “to give form”.⁶ The word ‘Orthopedia’ was used for the first time in 1741 by Nicholas Andry, which meant straight child. It is derived out of two Greek words, ‘Orthos’ meaning straight, free from deformity and ‘paidios,’ a child. Since their inception both the specialties are inseparable. Plastic surgery is an innovative, problem solving clinical specialty that deals with a wide range of aesthetic and reconstructive challenges while the Orthopaedic surgery provides a stable platform to fulfill these challenges.

The most common ground for Orthoplastic surgery is in extremity trauma. It has been established that these complex extremity injuries are best handled by a multidisciplinary team of experienced Plastic and Orthopaedic surgeons.^{7,8} It has resulted in a decreased number of amputations and improved long-term outcome. The Orthopaedic and Plastic surgeons involved in the care must have a clear understanding of each other’s role and their importance for a good outcome. From the historical course to trauma, the interdisciplinary approach extended to elective indications like tumors excision, salvage of infected or exposed prostheses, osteomyelitis, and avascular necrosis is managed with an interdisciplinary approach.⁹ Other evolving branches like allotransplantation, robotic, regenerative surgery, vascular trauma, brachial plexus, and peripheral nerve injuries are also applied to the Orthoplastic field.

In this special issue, we have some excellent review and research articles related to the above mentioned subjects in Orthoplasty. The obvious advantages of Orthoplasty has lead to the development of many Orthoplastic units across the world and starting of new Orthoplastic journals. Unfortunately though, the Orthoplastic surgery has not yet been universally accepted and, in the majority of countries, the insurance claims are not fully reimbursed.¹⁰ There is still much work to be done, and we hope that the marriage between these two specialties will further blossom and reach newer heights by “Building Bridges toward Interdisciplinary Surgical Care.” It is a win-win situation for everyone: Patients, Orthopaedic surgeons, and Plastic surgeons!

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Available online 24 July 2019