

Letter to Editor

The Remarkable Benefits of Hyaluronic Acid in Full Facial Care: Skin, Oral Mucosa and Bone Health

R. Borgia

University of Ferrara, Ferrara, Italy

Corresponding author:

Raffaele Borgia, MD, DDS

University of Ferrara

e-mail: raffaeleborgia@yahoo.it

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Dear Editor,

In recent years, hyaluronic acid has gained widespread recognition for its remarkable contributions to achieving healthier skin, mucosa and bone.

Hyaluronic acid, also known as hyaluronan, is a naturally occurring substance in the human body, with the highest concentrations found in the skin, eyes, and joints. This glycosaminoglycan plays a pivotal role in maintaining moisture, promoting tissue repair, and preserving the skin's youthful appearance. As we age, the body's hyaluronic acid levels decline, leading to a loss of skin hydration, elasticity, and the formation of fine lines and wrinkles (1-4).

Hyaluronic acid is a key molecule in differentiation process during development and play a role in several malformation and orthopedic disease (5-22).

Hyaluronic acid is available in various skincare products, including serums, creams, and dermal fillers. Its ability to retain water and bind it to skin cells makes it a powerful moisturizer, capable of revitalizing and rejuvenating the skin. In addition to hydration, hyaluronic acid contributes to a more youthful complexion by stimulating collagen production, thus diminishing the appearance of wrinkles (23-32).

One of the key reasons for the popularity of hyaluronic acid is its safety profile. It is well-tolerated by most individuals, with minimal side effects and a low risk of allergic reactions. Moreover, hyaluronic acid-based dermal fillers offer non-surgical options for facial rejuvenation, with results that can last from several months to over a year (33).

As regard oral mucosa, hyaluronic acid is essential component in maintaining the structural integrity, lubrication, and overall health of the epithelium. One of the primary functions of hyaluronic acid in the oral mucosa is to ensure proper hydration. It possesses the remarkable ability to bind and retain water, providing the mucosa with its characteristic moist and flexible texture. This hydration is vital for the oral cavity, as it helps to prevent dryness and irritation, which can lead to discomfort and more serious conditions such as mucosal ulcers (34-52).

Furthermore, hyaluronic acid has anti-inflammatory and wound-healing properties. When the oral mucosa is damaged, whether due to trauma, dental procedures, or diseases, hyaluronic acid plays a pivotal role in accelerating the healing process. It helps to reduce inflammation, minimize pain, and promote tissue regeneration, ultimately aiding in a quicker recovery.

Recent studies have also suggested that hyaluronic acid may be beneficial in various dental and medical applications, including oral surgery, periodontal treatments, and the management of conditions such as dry mouth and mucositis resulting from chemotherapy or radiation therapy (53-59).

Regarding bone health, hyaluronic acid, a naturally occurring substance in the human body, has garnered attention for its multifaceted properties, including its vital role in bone formation and maintenance.

Studies have shown that hyaluronic acid plays a crucial role in modulating bone cell activities, including osteoblasts (bone-forming cells) and osteoclasts (bone-resorbing cells) (60-74). By promoting the proliferation and differentiation of osteoblasts, hyaluronic acid contributes to the formation of new bone tissue. Moreover, it helps regulate the activity of osteoclasts, thereby maintaining the balance between bone formation and bone resorption. This delicate equilibrium is essential for overall bone health and preventing conditions like osteoporosis, which is characterized by weakened and brittle bones.

Furthermore, hyaluronic acid has been explored for its potential applications in orthopedic surgeries and bone tissue engineering. Researchers are investigating its use in developing advanced biomaterials and scaffolds that can enhance bone regeneration and accelerate the healing process in patients with bone fractures or degenerative bone diseases.

The therapeutic potential of hyaluronic acid in the realm of bone health is not only limited to its structural contributions but also extends to its anti-inflammatory and analgesic properties. By reducing inflammation and pain associated with bone-related conditions, hyaluronic acid offers a holistic approach to managing bone disorders and improving the quality of life for affected individuals (75-82).

In conclusion, hyaluronic acid has emerged as a game-changer in the field of full facial care. Its natural origins, versatility, and safety make it a prime choice for individuals both in healthy and in pathological conditions.

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