

Letter to Editor

Cosmetic prosthodontics

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Dear Editor,

cosmetic prosthodontics is a field of dentistry that focuses on restoring and enhancing the appearance of a patient's teeth and smile and it cover a range of topics related dental veneers, crowns, bridges, and dentures, as well as cosmetic procedures like teeth whitening and orthodontics. The main findings include advancements in cosmetic prosthodontics materials and techniques, patient satisfaction with various cosmetic dental prostheses, cosmetic prosthodontics on the psychological and emotional well-being of patients, longevity and maintenance of cosmetic dental restorations and cost-effectiveness for cosmetic prosthodontic procedures (1-9).

The main findings in cosmetic prosthodontics include material innovations, digital technologies, implant dentistry and minimally invasive procedures. In this light, cosmetic prosthodontics has witnessed significant developments in dental materials, including the use of advanced ceramics, zirconia, and hybrid materials, which offer improved esthetics, strength, and durability. Digital dentistry has transformed the field, with techniques like computer-aided design and computer-aided manufacturing (CAD/CAM) enabling precise and efficient customization of dental restorations (10). The integration of dental implants with cosmetic prosthodontics has become more seamless, offering comprehensive solutions for tooth replacement and smile enhancement (11-15). Techniques that preserve natural tooth structure and focus on conservative approaches have gained prominence, minimizing the need for extensive tooth reduction (16, 17). In this light any procedure related to maintain teeth are relevant (18-22).

The success rates and patient satisfaction with various cosmetic dental prostheses are essential factors in evaluating the effectiveness of cosmetic dentistry. The success of these prostheses is typically assessed based on their longevity, functionality, esthetics, and overall patient satisfaction (23). For example, the choice of materials, such as ceramics, porcelain, or composite resins, plays a crucial role in the success of cosmetic dental prostheses. The durability and esthetic properties of these materials impact how long the prosthesis will last and how well it blends with natural teeth (24). Different types of dental prostheses have varying success rates and patient satisfaction levels. For example, veneers are commonly used for minor esthetic improvements, while dental implants are a more comprehensive solution for tooth replacement (25). The longevity of cosmetic dental prostheses depends on factors like material quality, oral hygiene, and the patient's bite forces. From this point of view periodontal health is essential (26-36). Understanding the expected lifespan of various prostheses is essential for both patients and dental professionals (37). Setting realistic patient expectations and understanding their esthetic goals is vital for achieving high patient satisfaction. Communication between the dentist and the patient is critical in this regard (38). The techniques used by the dental professional in prosthesis preparation and placement significantly affect the success and longevity of the restoration. Advances in clinical techniques, such as digital dentistry and minimally invasive procedures, can improve outcomes. Also the volume of alveolar crest is of paramount importance (39-44). Finally, to assess patient satisfaction, studies often rely on patient-reported outcomes, including self-assessment of esthetics, comfort, and overall quality of life after receiving cosmetic dental prostheses.

Cosmetic prosthodontics, which encompasses various procedures to enhance the esthetic aspects of a patient's smile, plays a significant role in not only improving oral health but also in positively impacting the psychological and emotional well-being of patients. The restoration of a beautiful and functional smile can lead to increased self-esteem, confidence, and an overall improved quality of life for individuals seeking cosmetic dental treatments (45). Several key points to consider in understanding the impact of cosmetic prosthodontics on psychological and emotional well-being include enhanced self-esteem, improved self-confidence, reduced dental anxiety, functional benefits, psychosocial well-being and social and professional advantages. Patients often report a boost in self-esteem after undergoing cosmetic dental procedures. The

correction of dental flaws, such as misaligned teeth or discoloration, can make individuals feel more confident in social and professional settings (45). Aesthetic improvements through cosmetic prosthodontics can lead to improved self-confidence. Patients may feel more comfortable smiling, speaking, and engaging with others, which positively affects their interactions and relationships (46). Patients who previously experienced dental anxiety due to esthetic concerns may find that cosmetic prosthodontics helps alleviate their fear of dental visits. This, in turn, can lead to better oral health maintenance. Cosmetic dental prostheses not only improve appearance but also enhance oral function. Patients can enjoy improved chewing, speech, and overall comfort, which can contribute to a better quality of life. Research indicates that cosmetic dental treatments can have a significant impact on psychosocial well-being, including reduced stress, anxiety, and depression. A positive self-image is closely tied to mental health (47). Patients with enhanced smiles may experience advantages in their social and professional lives. These advantages can include improved job prospects, greater success in dating, and overall enhanced social integration.

The longevity and maintenance of cosmetic dental restorations are critical aspects of assessing the effectiveness of these procedures. Patients and dental professionals alike are interested in ensuring that esthetic enhancements to the smile are not only beautiful but also durable. Key points to consider in understanding the longevity and maintenance of cosmetic dental restorations include material selection, clinical techniques, oral hygiene and maintenance, wear and tear, aging and esthetic changes and repair versus replacement. The choice of materials is crucial in determining the longevity of cosmetic restorations. Modern dental materials, such as ceramics and composite resins, offer improved durability and esthetics (48). The skill of the dental professional in preparing, placing, and bonding the restoration influences its longevity. Proper technique and attention to detail are essential (49). Patients must maintain good oral hygiene and attend to regular dental check-ups to ensure the longevity of their cosmetic restorations. Poor oral hygiene can lead to issues such as decay or gum disease, which can compromise the restoration (50-56). The location of the restoration, patient habits, and occlusal forces can impact the wear and tear on cosmetic restorations. Restorations in high-stress areas may need replacement or repair sooner (57). As the patient's face and smile change over time, cosmetic restorations may need adjustments to maintain their esthetic appeal (58) and this point is of paramount importance in patients affected by systemic disease (59-76). Understanding when to repair or replace cosmetic restorations is crucial for both the dentist and the patient. The decision depends on factors like the extent of damage and the age of the restoration (77).

The cost-effectiveness and insurance coverage for cosmetic prosthodontic procedures are important considerations for both patients and dental professionals. Cosmetic prosthodontic treatments, which aim to enhance the esthetic aspects of a patient's smile, can vary widely in cost, and insurance coverage for such procedures may be limited. Understanding the economic aspects of cosmetic prosthodontics is crucial for patients to make informed decisions and for dental professionals to provide suitable treatment options (78-81). Key points to consider in understanding the cost-effectiveness and insurance coverage for cosmetic prosthodontic procedures include procedure costs, insurance coverage, out-of-pocket expenses, long-term benefits and alternative treatments. The cost of cosmetic prosthodontic procedures can range from relatively affordable treatments like teeth whitening to more expensive options such as dental implants and full-mouth restorations. Patients need to consider the costs associated with their desired treatments (82). Dental insurance policies often provide limited coverage for cosmetic procedures, considering them elective rather than medically necessary. Patients should review their insurance policies to understand the extent of coverage available for cosmetic treatments (83). In this light home care and regular check by dentist can help in maintaining the restoration in better condition over time (84-88). Patients may need to cover a significant portion of the costs out of pocket, especially for extensive cosmetic procedures. Understanding and planning for these expenses is essential (89, 90). While cosmetic prosthodontic procedures may have higher upfront

costs, they can offer long-term benefits in terms of improved oral health and quality of life, making them cost-effective in the long run. Patients should discuss alternative, cost-effective treatments with their dentist to achieve their desired esthetic goals within their budget.

In conclusion, cosmetic prosthodontics provides valuable advantages for both dental professionals and patients. It can help dentists stay provide better therapies related on latest advancements and evidence-based practices in cosmetic dentistry, allowing them to offer the best possible care to their patients. Additionally, patients can benefit from understanding the available options, and the expected outcomes when seeking cosmetic dental treatments.

REFERENCES

1. Shahmiri R, Standard OC, Hart JN, Sorrell CC. Review of advanced dental materials for use in prosthodontics. Part I: Dental ceramics. *J Prosthodont*. 2017; 26(2):101-111.
2. Greco G, Borgia R, Casto C. Immediate provisional prosthesis: a possible reality in the office. Technical notes. *European Journal of Musculoskeletal Diseases* 2023; 12((1)-(SPECIAL ISSUE 1)):7-11.
3. Greco G, Borgia R, Casto C. Oral rehabilitation with removable partial denture: technical consideration. *European Journal of Musculoskeletal Diseases* 2023; 12((1)-(SPECIAL ISSUE 1)):19-23.
4. Zucchinelli L, Zucchinelli E, Casto C. Acrylic resin for denture bases: tensile test in specimens obtained with three different polymerization methods. *European Journal of Musculoskeletal Diseases* 2023; 12((1)-(SPECIAL ISSUE 1)):25-31.
5. Zucchinelli L, Zucchinelli E, Casto C. Examination of the structural failure of a fixed prosthetic rehabilitation in metal-ceramic. technical considerations. *European Journal of Musculoskeletal Diseases* 2023; 12((1)-(SPECIAL ISSUE 1)):33-40.
6. Zucchinelli L, Marino L, Casto C. Smile restoring in frail elderly in dental home assistance. *European Journal of Musculoskeletal Diseases* 2023; 12((1)-(SPECIAL ISSUE 1)):47-52.
7. Candotto V, Borgia R, Casto C. A post-operative prosthetic nasal device in orthodontic acrylic resin adjuvant to the correction of nasal asymmetry. A case report. *European Journal of Musculoskeletal Diseases* 2023; 12((1)-(SPECIAL ISSUE 1)):53-58.
8. Zucchinelli L, Zucchinelli E, Carnevali G, Casto C. A method to get a reliable dental impression in implantology. *European Journal of Musculoskeletal Diseases* 2023; 12((1)-(SPECIAL ISSUE 1)):
9. Fusello SY, Seccamani A. Set-up: comparison between manual and digital methods. *European Journal of Musculoskeletal Diseases* 2021; 10(2):47-54.
10. Miyazaki T, Hotta Y, Kunii J, Kuriyama S, Tamaki Y. A review of dental CAD/CAM: current status and future perspectives from 20 years of experience. *Dent Mater J*. 2009; 28(1):44-56. doi:<https://doi.org/10.4012/dmj.28.44>
11. Jung RE, Zembic A, Pjetursson BE, Zwahlen M, Thoma DS. Systematic review of the survival rate and the incidence of biological, technical, and aesthetic complications of single crowns on implants reported in longitudinal studies with a mean follow-up of 5 years. *Clin Oral Implants Res*. 2012; 23 Suppl 6(2-21). doi:<https://doi.org/10.1111/j.1600-0501.2012.02547.x>
12. Lorusso F, Ascani G, Inchingolo F, Tari SR, Bugea C, Scarano A. The bone-implant contact and osseointegration of different implant surface treatment: the findings from a systematic review of literature. *European Journal of Musculoskeletal Diseases* 2023; 12(3):95-117.
13. Sayahpour A, Tealdo MT, Gelpi F, et al. Aretrospective multicentric study of 56 patients treated with 92 pterygoid implants for partial/full arch implant supported fixed rehabilitation: implant and prosthesis success rate. *European Journal of Musculoskeletal Diseases* 2023; 12(3):119-126
14. Cecchetti F, Di Girolamo M, Spuntarelli M, Baggi L, Ottria L, Mazza D. Sub-crestal implants with platform-switching and one time abutment. *European Journal of Musculoskeletal Diseases* 2023; 12(3):133-137.
15. Greco G, Borgia R, Casto C. Occlusal-vertical rebalancing for implantprosthetic planning: technical considerations. *European Journal of Musculoskeletal Diseases* 2023; 12((1)-(SPECIAL ISSUE 1)):13-18.
16. Christensen GJ. Cosmetic contouring or recontouring of teeth. *J Am Dent Assoc*. 1989; 119(3):407-409.
17. Peumans M, Van Meerbeek B, Lambrechts P, Vanherle G. Composite veneers and diastema closure. *J Esthet Dent*. 1997; 9(4):149-156.

18. Petruzzi M, Messina S, De Falco D, et al. Dental abscesses and phlegmons: a brief review. *European Journal of Musculoskeletal Diseases* 2022; 11(1):31-33.
19. Cecchetti F, Di Girolamo M, Baggi L, Mazza D. Intramuscular oedema after truncular analgesia diagnosed by mri: a case report and differential diagnosis of mouth opening limitation. *European Journal of Musculoskeletal Diseases* 2022; 11(2):73-78.
20. Fiori A, Rotolo RP, Strangio BM, et al. Orthodontic management of maxillary tooth transposition: a case report. *European Journal of Musculoskeletal Diseases* 2022; 11(3):103-108.
21. Jamilian A, Rotolo RP, Correra A, et al. Severely impacted canine: high risk or great challenge to overcome? . *European Journal of Musculoskeletal Diseases* 2022; 11(3):121-127.
22. Di Girolamo M, Cecchetti F, Stelitano G, Volpe L, Boghi F, Mazza D. Surgical approach of an ectopic third molar in the maxillary sinus. *European Journal of Musculoskeletal Diseases* 2023; 12(3):139-142.
23. Pjetursson BE, Lang NP. Prosthetic treatment planning on the basis of scientific evidence. *J Oral Rehabil.* 2008; 35 Suppl 1:72-79. doi:<https://doi.org/10.1111/j.1365-2842.2007.01824.x>
24. Pjetursson BE, Sailer I, Makarov NA, Zwahlen M, Thoma DS. All-ceramic or metal-ceramic tooth-supported fixed dental prostheses (FDPs)? A systematic review of the survival and complication rates. Part II: Multiple-unit FDPs. *Dent Mater.* 2015;31(6):624-639. doi:<https://doi.org/10.1016/j.dental.2015.02.013>
25. Johnston WM, Ma T. Esthetics: from the teeth to the smile. *J Prosthet Dent.* 2006; 96(2):386-395.
26. Caccianiga G, Erba P, Caccianiga G, Caccianiga P. Modified oral hygiene protocols to prevent periodontal diseases. role of lasers and phase contrast microscopes in periodontal maintenance therapy. *European Journal of Musculoskeletal Diseases* 2021; 10(1):1-7.
27. Caccianiga P, Carminati I, Caccianiga G. Pain in fixed orthodontic treatment. role of photobiomodulation: dream or reality? *European Journal of Musculoskeletal Diseases* 2021; 10(2):67-74.
28. Bonioli M, De Santis D, Cagnin E. Collagen matrix for soft tissue regeneration: basic principles and case report. *European Journal of Musculoskeletal Diseases* 2021; 10(3):95-101.
29. De Gregorio F, Napolitano R, Ferati K, et al. Open bite with skeletal class iii relationship treated using of clear aligner: a case report. *European Journal of Musculoskeletal Diseases* 2021; 10(3):103-108.
30. Iuorio G, Iuorio MT, Iuorio AM, et al. Pathologic tooth migration and atypical swallowing in periodontal patients: a new approach with elastodontic therapy - clinical series. *European Journal of Musculoskeletal Diseases* 2021; 10(3):109-124.
31. De Falco D, Messina S, Scivetti M. Periodontal ehlers-danlos syndrome: an emerging genodermatosis affecting the oral cavity. *European Journal of Musculoskeletal Diseases* 2022; 11(1):41-43.
32. Caccianiga G, Caccianiga P. Photo-bio-modulation and patient's compliance with clear aligners. *European Journal of Musculoskeletal Diseases* 2023; 12(2):43-49.
33. Femiano F, Femiano K, Ferati A, et al. Effectiveness of a diode low-level laser therapy on tooth sensitivity related to in-office leaching: a clinical study. *European Journal of Musculoskeletal Diseases* 2023; 12(2):87-93.
34. Rotolo RP, Correra A, Ferati K, et al. Treatment management in a young patient with temporomandibular disorder and malocclusion: a case report. *European Journal of Musculoskeletal Diseases* 2023; 12(3):143-148.
35. Zucchinelli L, Marino L, Carnevali G, Casto C. choice of the provisional in patients undergoing periodontal therapy: technical considerations. *European Journal of Musculoskeletal Diseases* 2023; 12((1)-(SPECIAL ISSUE 1)):41-45.
36. Denissen HW, Kalk W. Veneers: state of the art. *J Oral Rehabil* 1983; 10(3):185-203.
37. Sailer I, Feher A, Filser F, Gauckler LJ, Luthy H, Hammerle CH. Five-year clinical results of zirconia frameworks for posterior fixed partial dentures. *Int J Prosthodont.* 2007; 20(4):383-388.
38. Haworth S, Shovlin J. The psychological impact of cosmetic dentistry: a review of the literature. *Br Dent J.* 2009; 206(1):171-174.
39. Stablum W, Pellati A, Martinelli M, Lodi F, Lauritano D. Histomorphometric analysis on socket preservation in the upper jaw using a new xenograft material. *European Journal of Musculoskeletal Diseases.* 2021; 10(1):17-23.
40. Minervini G, Xhajanka E, Sayahpour B, et al. Soft and hard tissue changes following mandibular setback surgery in skeletal class III patients. *European Journal of Musculoskeletal Diseases.* 2021; 10(2):55-60.
41. Manfrè L, De Vivo AE, Alqatani HM, et al. Treating the micro instability with percutaneous ct guided transfacetal fixation: a 15-year experience. *European Journal of Musculoskeletal Diseases.* 2022; 11 (1):23-29.
42. Stablum W, Pellati A, Palmieri A, Scapoli L. Effect of a new xenograft material in mandibular post-extraction sites: a case series. *European Journal of Musculoskeletal Diseases.* 2023; 12(1):1-7.
43. Andreasi Bassi M. Vertical and horizontal gbr via a demineralized xenogenic bone cortical lamina: a case report. *European Journal of Musculoskeletal Diseases.* 2023; 12(2):57-64.

44. Di Girolamo M, Mazza D, Volpe S, Stelitano G, Volpe L, F. C. Hydroxyapatite and beta-tricalcium phosphate in the socket preservation: presentation of clinical cases. *European Journal of Musculoskeletal Diseases*. 2023; 12(2):77-85.
45. Davis LG, Ashworth PD, Spriggs LS. Psychological effects of aesthetic dental treatment. *J Dent* 1998; 26(7):547-554. doi:[https://doi.org/10.1016/s0300-5712\(97\)00031-6](https://doi.org/10.1016/s0300-5712(97)00031-6)
46. Cehreli ZC, Arhun N. Benefits of tooth whitening on the psychological status of young adults: A randomized clinical trial. *Int J Dent Hyg*. 2008; 6(4):290-294.
47. Othman SA, Eun-Mi O, Sulki K. The influence of missing posterior teeth on masticatory functions of subjects with maxillary full-arch fixed prostheses and mandibular removable partial dentures. *J Oral Rehabil*. 2004; 31(8):779-785.
48. Ackerman MB, Ackerman JL. Smile analysis and design in the digital era. *J Clin Orthod* 2002; 36(4):221-236.
49. Ferracane JL. Resin composite--state of the art. *Dent Mater*. 2011; 27(1):29-38. doi:<https://doi.org/10.1016/j.dental.2010.10.020>
50. Assanti RA, Daliu P. Correlation Between Oral Dysbiosis And Oral Pathologies. *European Journal of Musculoskeletal Diseases* 2022; 11(2):53-57.
51. Assanti RA, Daliu P. Oral hygiene in patients with autoimmune bullous diseases. *European Journal of Musculoskeletal Diseases* 2022; 11(2):59-63.
52. Parma Benfenati L. Treatment of amalgam tattoo with mucoabrasion associated with a bilaminar technique and a subepithelial connective tissue graft: a case report. *European Journal of Musculoskeletal Diseases* 2022; 11(2):79-83.
53. Contaldo M. Management of recurrent aphthous stomatitis in a young man with food allergies: a case report. *European Journal of Musculoskeletal Diseases* 2022; 11(2):85-88.
54. Messina S, De Falco D, De Benedittis M. Oral manifestations of erythema multiforme and covid-19: a minireview. *European Journal of Musculoskeletal Diseases*. 2022; 11(3):97-101.
55. Petruzzi M, Di Stasio D, Romano A, Messina S, di Bello V, Lucchese A. Does a secondary burning mouth syndrome exist? . *European Journal of Musculoskeletal Diseases* 2022; 11(3):129-131.
56. Galleggiante S, Ferrara A. Mucous membrane pemphigoid affecting the oral mucosae: a brief review. *European Journal of Musculoskeletal Diseases* 2023; 12(1):39-42.
57. Hickel R, Peschke A, Tyas M, et al. FDI World Dental Federation - clinical criteria for the evaluation of direct and indirect restorations. Update and clinical examples. *J Adhes Dent* 2010; 12(4):259-272. doi:<https://doi.org/10.3290/j.jad.a19262>
58. Burke FJ, Crisp RJ, Cowan AJ, Lamb DJ, Thompson O. 25-Year clinical performance of direct and indirect resin composite restorations in an adult general dental practice. *J Dent* 2017; 59:1-7.
59. Sollazzo V. Kohler's bone disease type 1 *European Journal of Musculoskeletal Diseases* 2021; 10(1):33-36.
60. Qorri E, Daliu P. Brittle bone disease. *European Journal of Musculoskeletal Diseases* 2021; 10(1):37-41.
61. Sollazzo V. Kienbock's disease. *European Journal of Musculoskeletal Diseases* 2021; 10(1):43-46.
62. Sayahpour A, Tashakor A, Darnahal A, et al. Relationship between missing teeth and cleft side in non-syndromic cleft patients. *European Journal of Musculoskeletal Diseases* 2021; 10(2):75-81.
63. Borgia R. Parry-Romberg syndrome - an update. *European Journal of Musculoskeletal Diseases* 2021; 10(2):91-94.
64. Borgia R. Myositis ossificans: a review on a biological basis. *European Journal of Musculoskeletal Diseases* 2021; 10(3):125-129.
65. Carnevali G, Lodi F, Zucchinelli L. Myofascial pain syndrome: an understanding of molecular biology and management. *European Journal of Musculoskeletal Diseases* 2021; 10(3):131-135.
66. Carnevali G, Mavriqi L. Gorham-stout syndrome. *European Journal of Musculoskeletal Diseases*. 2021; 10(3):141-145.
67. Carinci F. Dentinogenesis imperfecta: a review. *European Journal of Musculoskeletal Diseases* 2022; 11(1):11-14.
68. Sollazzo V. Ollier's disease. *European Journal of Musculoskeletal Diseases* 2022; 11(1):35-39.
69. Jamilian A, Ferati K, Palermo A, Mancini A, Rotolo RP. Craniofacial development of the child. *European Journal of Musculoskeletal Diseases* 2022; 11(3):89-95.
70. Candotto V, Carls P. Molecular mechanism of sarcolemma disease: a short review. *European Journal of Musculoskeletal Diseases* 2022; 11(3):133-137.
71. Zucchinelli L, Spalice V. Genetic basis of Pierre Robin syndrome. *European Journal of Musculoskeletal Diseases*. 2023; 12(1):22-26.

72. Candotto V, Carls P. Extrinsic eye muscle impairment in basedow's disease: a brief review on molecular mechanisms. *European Journal of Musculoskeletal Diseases* 2023; 12(1):27-30.
73. Sollazzo V. Winchester syndrome: a short review. *European Journal of Musculoskeletal Diseases* 2023; 12(1):31-37.
74. Bonetti M, Frigerio M, Sabetta G, Degliuomini R, Bonetti S. Incidental diagnosis of Mikulicz disease: a case report. *European Journal of Musculoskeletal Diseases* 2023; 12(2):65-70.
75. Bonetti M, Frigerio M, Ottaviani G, Sabetta G, Degliuomini R, Bonetti S. Undifferentiated connective tissue disease with hyperplasia of yellow ligaments in L4-L5 causing segmental spinal stenosis. *European Journal of Musculoskeletal Diseases* 2023; 12(3):127-131.
76. Candotto V, Borgia R, Casto C. Removal of a large neoformation in a deaf-mute patient in Zinvì. A case report. *European Journal of Musculoskeletal Diseases* 2023; 12((1)-(SPECIAL ISSUE 1)):1-6.
77. LeSage B, Caputo AA. An analysis of maintenance therapy for posterior resin composite restorations. *Gen Dent* 2001; 49(5):470-474.
78. Magne P, So WS, Cascione D. Immediate dentin sealing supports delayed restoration placement. *J Prosthet Dent* 2007; 98(3):166-174. doi:[https://doi.org/10.1016/S0022-3913\(07\)60052-3](https://doi.org/10.1016/S0022-3913(07)60052-3)
79. Hickel R, Roulet JF, Bayne S, et al. Recommendations for conducting controlled clinical studies of dental restorative materials. *Clin Oral Investig* 2007; 11(1):5-33. doi:<https://doi.org/10.1007/s00784-006-0095-7>
80. Bailit HL, Beazoglou TJ, Drozdowski ML. Dental benefits and practice: 10 years of change. *J Am Dent Assoc* 1995; 126(7):965-972.
81. Hansen P, Tuna EB, Khan SA. Economic aspects of esthetic implantology. *Dent Clin North Am* 2006; 50(1):133-149.
82. Riedy CA, Beazoglou TJ, Heffley DR, Brown LJ, Bailit H. Financial implications of coverage decisions for dental service. *J Public Health Dent* 2005; 65(4):194-204.
83. Gilbert GH, Shelton BJ, Chavers LS, Bradford EH. National dental practice-based research network feasibility of a patient-reported registry of prosthodontic outcomes. *J Prosthodont* 2009; 18(2):99-104.
84. Lauritano D, Qorri E, Mucchi D, Carinci F. Ozonized oral gel as an adjuvant in the treatment of periodontal disease: a preliminary report. *European Journal of Musculoskeletal Diseases* 2023; 12(3):159-164.
85. Fiori F, Romano A. Osteonecrosis of the mandible associated with zoledronate therapy. *European Journal of Musculoskeletal Diseases* 2023; 12(3):165-168.
86. Martinelli M, Pellati A, Saleh Al-Hamed F. Role of hyaluronic acid mesenchymal stem cell differentiation: a cellular investigation on inflammation biological network. *European Journal of Musculoskeletal Disease*. 2021; 10(1):9-16
87. Palmieri A, Daliu P, Qorri E. The effect of hyaluronic acid on human fibroblasts: an in vitro study. *European Journal of Musculoskeletal Diseases* 2021; 10(2):83-89.
88. Scapoli L, Avantaggiato A, Khater AGA. Influence of hyaluronic acid on extracellular matrix produced by mesenchymal stem cells. *European Journal of Musculoskeletal Diseases* 2022; 11(1):1-9.
89. Gabel R, Turner S, Villa JJ, Jackson S, Hauge P, Richardson T. Dental implant utilization following sinus augmentation in a graduate prosthodontic clinic. *Int J Dent Hyg*. 2012; 1-16
90. Douglass JM, Douglass AB, Lund PA. The incidence of dental problems in patients with head and neck cancer receiving radiation therapy. *J Am Dent Assoc*. 2007; 138(11):1366-1373.