



Dental Implants: Review Article

Share of Articles in the “Dental Implants” Section among the Total Number of Articles in the Journal Focused on All Aspects of Oral and Maxillofacial Surgery and 5-Year Impact Factor 1.943: A 3-Year Longitudinal Bibliometric Analysis

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ABSTRACT

Purpose: To analyze the share of articles (total number and percent) in the “Dental Implants” section and the total number of articles during a 3-year period of publishing in the journal which had the highest total number of dental implant articles in the 1966-2016 period among other journals focused on all aspects of oral and maxillofacial surgery.

Materials and Methods: Our study included the calculations in the consecutive 36 issues (from January 2017 to December 2019) of the *Journal of Oral and Maxillofacial Surgery (JOMS)*: 1) the total number of articles and 2) the number of articles in the “Dental Implant” section.

Results: Articles focused on pre-implant and implant surgery continue to stay in the focus of interest of the leading OMS journal reaching 5.43% (2.02 papers per 1 issue) of its total amount of publications. The mean total number of articles per 1 issue during a 3-year period became 37.33 papers. Despite the fact that the total number of articles in 2018 increased to 452, the number in 2017 and 2019 was mirrored and totaled 446 articles.

Conclusions: The articles focused on implantology continue to stay in the focus of interest of the leading OMS journal. The very high total number of articles (446) per year in 2017 and 2018 can indicate a very strong journal’s reputation among authors and submission levels. Also, as the mean of total number of articles per 1 issue is 37.33; it gives a possibility to increase the publishing frequency in two times (biweekly journal) what can lead to the multiple advantages for the authors, readers, and editorial office.

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INTRODUCTION

Choosing of peer-reviewed journal for the publication is usually a challenge for the oral and maxillofacial surgeons, PhD students, residents, interns, and trainees of the fellowship programs. An academic system in different countries usually requires from authors to submit their papers to the journals covered by Scopus or publications with impact factor. For specialists who are involved into oral and maxillofacial surgery (OMS) with often performance of dental implants surgeries and persons in OMS educational programs the focus of attention usually falls to the journals with a scope on all aspects of OMS. Moreover, they want to publish their dental implants studies not only in the journals covered by Scopus and with impact factor, but simultaneously belonging to the OMS community and their specialty.

According to the study of Yeung and Leung (2018) the highest number of publications dedicated to dental implants among journals focused on all aspects of OMS was in the *Journal of Oral and Maxillofacial Surgery (JOMS)* and reached the number of 378 articles (i.e., for 2.6% of total articles [related with dental implants] count) from 1966 to 2016 period.¹ The authors used the Web of Science Core Collection database and search for the topic of “dent* implant*.”¹

The purpose of our study was to analyze the share of articles (total number and percent) in the “Dental

Implants” section and the total number of articles during a 3-year period of publishing in the journal which had the highest total number of dental implant articles in a 1966-2016 period among other journals focused on all aspects of oral and maxillofacial surgery. The goal of analysis was to understand the publishing tendency in the “Dental Implants” section due to the next criteria: 1) reduction/growth of total number of published articles for three consecutive years (2017, 2018, and 2019), 2) percentage change of articles` number in the “Dental Implants” section.

MATERIALS AND METHODS

Despite the fact that two publications which are focused on all aspects of oral and maxillofacial surgery, *Journal of Oral and Maxillofacial Surgery (JOMS)* (2018 impact factor = 1.781)² and *International Journal of Oral and Maxillofacial Surgery (IJOMS)* (2018 impact factor = 1.961)³, are included to the 10 journals with the highest number of dental implant publications,¹ and despite the fact that the 2018 and 5-year impact factor of *IJOMS*⁴ is higher than that of *JOMS*⁵ the last one was chosen as object of the study due to the fact that it contains 35.98% higher total number of dental implant articles (Table 1) in a 1966-2016 period.¹ Thus, taking into account the statistics of Yeung and Leung, as of march 2018, the *JOMS* can be considered the leading publication by the number of dental implant articles among journals focused on all aspects of maxillofacial and oral surgery.¹

TABLE 1. Impact Factor Comparison of Two Journals (Which Are Focused on All Aspects of OMS) with a Highest Numbers of Dental Implant Articles in a 1966-2016 Period.

Journal	2018 Impact Factor	5-Year Impact Factor	Total Number of “Dental Implant” Articles in a 1966-2016 Period
<i>International Journal of Oral and Maxillofacial Surgery</i>	1.961	2.190 ⁴	242
<i>Journal of Oral and Maxillofacial Surgery</i>	1.781	1.943 ⁵	378 (thus, during a 1966-2016 period, the <i>JOMS</i> has a 35.98% higher total number of dental implant articles than <i>IJOMS</i>)

Our study included the calculations in the consecutive 36 issues (from January 2017 to December 2019) of the *JOMS*: 1) the total number of articles and 2) the number of articles in the “Dental Implant” section.

Total number of articles included the articles of the next sections: “Editorials,” “Letters to the Editor,” “Perspectives,” “75th Anniversary Contribution,” “Special Contribution,” “Other,” “Clinical Focus,” “Dentoalveolar Surgery,” “Anesthesia/TMJ Disorders/

Facial Pain," "Dental Implants," "Pathology," "Craniofacial Trauma," "Craniofacial Deformities/Sleep Disorders/Cosmetic Surgery," "Surgical Oncology and Reconstruction."

From the study were excluded the Supplement issues of the 2017 (February 2017 Supplement, August 2017 Supplement, October 2017 Supplement), 2018 (October 2018 Supplement), and 2019 (September 2019 Supplement). "Erratums," "Reviewer Acknowledgements," "News and Announcements" were also excluded from a total number of articles.

RESULTS

Table 2 represents all collected data which belong to the inclusions criteria and demonstrated total number of articles in every issue, in "Dental Implants" section, and its percentage from total number of articles per issue. Also, every article's title published in the "Dental Implants" Section of JOMS is presented.

Summarizing the statistics: The highest number of articles (5 papers) in the "Dental Implants" section was noted only one time during a 3-year study period in a July issue of 2017. The lowest number of articles in the "Dental Implants" section was 1 article per 1 issue. The mean number of articles in the "Dental Implants" section became 2.02 papers per 1 issue.

The highest total number of articles per 1 issue was also in 2017 July's issue and counts 50 papers. The lowest total number of articles per 1 issue was 27 papers and this number of papers was noted in two issues (November 2017 and November 2019). The mean of total number of articles per 1 issue during 3-year period became 37.33 papers.

Generally, despite the total number of articles in 2018 (Table 3) increased a little bit to 452 papers, the number in 2017 and 2019 was mirrored and totaled 446 articles what can symbolize the stability of high reputation of the journal.

After 2017, when the share of articles in the "Dental Implants" section was 6.27 percent (28 articles) in 2018 and 2019 its percentage decreased to 4.86% (22 articles) and 5.15% (23 articles). That can symbolize, taking into account that total number of articles a year in 2018 increased to 452 papers and in 2019 returned to the number 446, that editorial board received lower number of submitted articles to the "Dental Implants" section and replenish the stable volume of the journal by publishing the expanding number of articles in other sections. Or it was a conscious decision of the editorial board to narrow the journal's scope related with pre-implant surgery and implantation with a strategic purpose to shift focus towards other OMS sections.

TABLE 2. A 3-Year Publishing Statistics of the JOMS: Total Number of Articles and "Dental Implants" Section. (Table 2 continued on next page)

Month, Year, Volume, Issue	Total Number of Articles per Issue	Number of Articles in "Dental Implants" Section and Its Percentage From Total Number of Articles per Issue	Title of the Articles in "Dental Implants" Section
Dec 2019, Vol. 77, Issue 12	34	2 (5.88%)	Efficacy evaluation of hyaluronic acid gel for the restoration of gingival interdental papilla defects. ⁶
			Does middle meatal antrostomy prevent the onset of maxillary sinusitis after zygomatic implant placement? ⁷
Nov 2019, Vol. 77, Issue 11	27	1 (3.7%)	In vitro experimental study of the effect of adjusting the guide sleeve height and using a visual direction-indicating guide on implantation accuracy. ⁸
Oct 2019, Vol. 77, Issue 10	35	2 (5.71%)	Bone levels are preserved after simultaneous sinus elevation at time of implant placement. ⁹
			Histologic, histomorphometric, and osteogenesis comparative study of a novel fabricated nanocomposite membrane versus cytoplasmic membrane. ¹⁰

TABLE 2 (cont'd). A 3-Year Publishing Statistics of the *JOMS*: Total Number of Articles and “Dental Implants” Section. (Table 2 continued on next page)

Month, Year, Volume, Issue	Total Number of Articles per Issue	Number of Articles in “Dental Implants” Section and Its Percentage From Total Number of Articles per Issue	Title of the Articles in “Dental Implants” Section
Sep 2019, Vol. 77, Issue 9	34	2 (5.88%)	Collagen matrix vascularization in a peri-implant vestibuloplasty situation proceeds within the first postoperative week. ¹¹
			Hard and soft tissue evaluation of different socket preservation procedures using leukocyte and platelet-rich fibrin: a retrospective clinical and volumetric analysis. ¹²
Aug 2019, Vol. 77, Issue 8	37	2 (5.40%)	Indirect bactericidal properties of recombinant human bone morphogenetic protein 2 in vitro. ¹³
			A case report on Gardner syndrome with dental implant treatment and a long-term follow-up. ¹⁴
Jul 2019, Vol. 77, Issue 7	40	1 (2.5%)	Tapered versus cylindrical implant: which shape inflicts less pain after dental implant surgery? A clinical trial. ¹⁵
Jun 2019, Vol. 77, Issue 6	47	3 (6.38%)	A comparison of immediate and delayed dental implant placement in head and neck surgery patients. ¹⁶
			Adalimumab-related dental implant infection. ¹⁷
			Influence of timing on the horizontal stability of connective tissue grafts for buccal soft tissue augmentation at single implants: a prospective controlled pilot study. ¹⁸
May 2019, Vol. 77, Issue 5	45	3 (6.66%)	Precision of simultaneous guided dental implantation in microvascular fibular flap reconstructions with and without additional guiding splints. ¹⁹
			Epstein-Barr virus-positive mucocutaneous ulcer mimicking peri-implantitis in a patient with systemic lupus erythematosus. ²⁰
			Maxillary sinus floor augmentation using low-crystalline carbonate apatite granules with simultaneous implant installation: first-in-human clinical trial. ²¹
Apr 2019, Vol. 77, Issue 4	41	2 (4.87%)	Morphological evaluation of the nasopalatine canal in patients with different facial profiles and ages. ²²
			Dental implants can facilitate orthognathic surgery in a patient with severe maxillary atrophy. ²³
Mar 2019, Vol. 77, Issue 3	29	2 (6.89%)	Bone regeneration of canine peri-implant defects using cell sheets of adipose-derived mesenchymal stem cells and platelet-rich fibrin membranes. ²⁴
			Does apico-coronal implant position influence peri-implant marginal bone loss? A 36-month follow-up randomized clinical trial. ²⁵
Feb 2019, Vol. 77, Issue 2	37	1 (2.70%)	Clinical success of dental implants placed in posterior mandible augmented with interpositional block graft: 3-year results from a prospective cohort clinical study. ²⁶
Jan 2019, Vol. 77, Issue 1	40	2 (5%)	Implant-retained overdenture for a patient with severe lichen planus: a case report with 3 years' follow-up and a systematic review. ²⁷
			What is the most effective rehabilitation method for posterior maxillas with 4 to 8 mm of residual alveolar bone height below the maxillary sinus with implant-supported prostheses? A frequentist network meta-analysis. ²⁸

TABLE 2 (cont'd). A 3-Year Publishing Statistics of the JOMS: Total Number of Articles and "Dental Implants" Section. (Table 2 continued on next page)

Month, Year, Volume, Issue	Total Number of Articles per Issue	Number of Articles in "Dental Implants" Section and Its Percentage From Total Number of Articles per Issue	Title of the Articles in "Dental Implants" Section
Dec 2018, Vol. 76, Issue 12	34	1 (2.94%)	Do implant surgical guides allow an adequate zone of keratinized tissue for flapless surgery? ²⁹
Nov 2018, Vol. 76, Issue 11	39	2 (5.12%)	The crestal window approach for sinus floor grafting with delayed implant placement: a preliminary report. ³⁰
			Use of a non-crosslinked collagen membrane during guided bone regeneration does not interfere with the bone regenerative capacity of the periosteum. ³¹
Oct 2018, Vol. 76, Issue 10	41	4 (9.75%)	Do antiplatelet drugs increase the risk of bleeding after dental implant surgery? A case-and-crossover study. ³²
			Influence of platelet-poor plasma on angiogenesis and maintenance of volume in autogenous bone grafts. ³³
			Implant-supported hybrid prosthesis for severe mandibular defects: a sequence of treatments from alveolar distraction osteogenesis to implant restoration. ³⁴
			Effects of biomineralization on osseointegration of pure titanium implants in the mandible of beagles. ³⁵
Sep 2018, Vol. 76, Issue 9	48	1 (2.08%)	Histological and histomorphometric response to SocketKAP™ and SocketKAGE™ used for ridge preservation and repair: results from a randomized controlled clinical trial. ³⁶
Aug 2018, Vol. 76, Issue 8	35	1 (2.85%)	Effect of obesity or metabolic syndrome and diabetes on osseointegration of dental implants in a miniature swine model: a pilot study. ³⁷
Jul 2018, Vol. 76, Issue 7	40	1 (2.5%)	In vivo tooth-supported implant surgical guides fabricated with desktop stereolithographic printers: fully guided surgery is more accurate than partially guided surgery. ³⁸
Jun 2018, Vol. 76, Issue 6	36	2 (5.55%)	<i>Streptococcus anginosus</i> dental implant-related osteomyelitis of the jaws: an insidious and calamitous entity. ³⁹
			Fiber-reinforced resin fixed prostheses on 4 short implants in severely atrophic maxillas: 1-year results of a prospective cohort study. ⁴⁰
May 2018, Vol. 76, Issue 5	39	2 (5.12%)	Fixed, fiber-reinforced resin bridges on 5.0-mm implants in severely atrophic mandibles: up to 5 years' follow-up of a prospective cohort study. ⁴¹
			Clinical and radiographic performance of rough surfaced implants placed in the atrophic posterior maxilla with sinus membrane elevation without bone grafting: a prospective and preliminary study. ⁴²
Apr 2018, Vol. 76, Issue 4	33	2 (6.06%)	Is bone morphogenetic protein-2 as effective as alveolar distraction osteogenesis for vertical bone regeneration? ⁴³
			Does graft particle type and size affect ridge dimensional changes after alveolar ridge split procedure? ⁴⁴
Mar 2018, Vol. 76, Issue 3	31	2 (6.45%)	Closed approach for horizontal augmentation of the maxilla. ⁴⁵
			Immediate reconstruction of failed implants in the esthetic zone using a flapless technique and autogenous composite tuberosity graft. ⁴⁶

TABLE 2 (cont'd). A 3-Year Publishing Statistics of the *JOMS*: Total Number of Articles and “Dental Implants” Section. (Table 2 continued on next page)

Month, Year, Volume, Issue	Total Number of Articles per Issue	Number of Articles in “Dental Implants” Section and Its Percentage From Total Number of Articles per Issue	Title of the Articles in “Dental Implants” Section
Feb 2018, Vol. 76, Issue 2	38	2 (5.26%)	Definitive abutments placed at implant insertion and never removed: is it an effective approach? A systematic review and meta-analysis of randomized controlled trials. ⁴⁷
			Prospective and randomized evaluation of ChronOS and Bio-Oss in human maxillary sinuses: histomorphometric and immunohistochemical assignment for Runx 2, vascular endothelial growth factor, and osteocalcin. ⁴⁸
Jan 2018, Vol. 76, Issue 1	38	2 (5.26%)	Nanomechanical assessment of bone surrounding implants loaded for 3 years in a canine experimental model. ⁴⁹
			Application of real-time surgical navigation for zygomatic implant insertion in patients with severely atrophic maxilla. ⁵⁰
Dec 2017, Vol. 75, Issue 12	39	5 (12.82%)	Digital workflow for computer-guided implant surgery in edentulous patients: a case report. ⁵¹
			Mandibular rami implant: a new approach in mandibular reconstruction. ⁵²
			How accurate are implant surgical guides produced with desktop stereolithographic 3-dimensional printers? ⁵³
			Mandibular osteomyelitis following implant placement. ⁵⁴
Nov 2017, Vol. 75, Issue 11	27	3 (11.11%)	Effect of resveratrol on critical-sized calvarial defects of diabetic rats: histometric and gene expression analysis. ⁵⁵
			Hyperbaric oxygen therapy for wound dehiscence after intraoral bone grafting in the nonirradiated patient: a case series. ⁵⁶
			Floor-of-mouth hematoma following dental implant placement: literature review and case presentation. ⁵⁷
Oct 2017, Vol. 75, Issue 10	45	4 (8.88%)	Effect of religious belief on selecting of graft materials used in oral and maxillofacial surgery. ⁵⁸
			How effective is the tent screw pole technique compared to other forms of horizontal ridge augmentation? ⁵⁹
			Comparison of dental implant performance following vertical alveolar bone augmentation with alveolar distraction osteogenesis or autogenous onlay bone grafts: a retrospective cohort study. ⁶⁰
Sep 2017, Vol. 75, Issue 9	33	2 (6.06%)	Two-stage ridge split at narrow alveolar mandibular bone ridges. ⁶¹
			Evaluation of the mandibular lingual canal and anterior loop length to minimize complications associated with anterior mandibular surgeries: a cone-beam computed tomography study. ⁶²
Sep 2017, Vol. 75, Issue 9	33	2 (6.06%)	What are the incidence and factors associated with implant fracture? ⁶³
			Use of low-dose alendronate improves cranial bone repair and is associated with an increase of osteocalcin: an experimental study. ⁶⁴

TABLE 2 (cont'd). A 3-Year Publishing Statistics of the *JOMS*: Total Number of Articles and "Dental Implants" Section.

Month, Year, Volume, Issue	Total Number of Articles per Issue	Number of Articles in "Dental Implants" Section and Its Percentage From Total Number of Articles per Issue	Title of the Articles in "Dental Implants" Section
Aug 2017, Vol. 75, Issue 8	31	1 (3.22%)	Influence of lateral-medial sinus width on no-grafting inlay osteotome sinus augmentation outcomes. ⁶⁵
Jul 2017, Vol. 75, Issue 7	50	5 (10%)	Implant placement is more accurate using dynamic navigation. ⁶⁶
			Public and patient knowledge about dental implants. ⁶⁷
			Transalveolar osteotomy of the mandibular canal wall for the treatment of severely atrophied posterior mandible. ⁶⁸
			Alternative distraction osteogenesis technique after implant placement for alveolar ridge augmentation of the maxilla. ⁶⁹
Reconstruction of mandible: a fully digital workflow from visualized iliac bone grafting to implant restoration. ⁷⁰			
Jun 2017, Vol. 75, Issue 6	40	1 (2.5%)	Vertical alveolar distraction osteogenesis of the atrophic posterior mandible before dental implant insertion. ⁷¹
May 2017, Vol. 75, Issue 5	34	1 (2.94%)	Oral rehabilitation of a patient with ectodermal dysplasia treated with fresh-frozen bone allografts and computer-guided implant placement: a clinical case report. ⁷²
Apr 2017, Vol. 75, Issue 4	37	1 (2.7%)	Clinical and 3-dimensional radiographic evaluation of autogenous iliac block bone grafting and guided bone regeneration in patients with atrophic maxilla. ⁷³
Mar 2017, Vol. 75, Issue 3	33	1 (3.03%)	Simultaneous impacted third molar extraction and lateral ramus block graft harvest for horizontal ridge augmentation: a case series. ⁷⁴
Feb 2017, Vol. 75, Issue 2	43	3 (6.97%)	Is cone-beam computed tomography always necessary for dental implant placement? ⁷⁵
			Whole-arch single-stage free flap reconstruction and rehabilitation of the mandible: a case report and technical considerations on a new technique. ⁷⁶
			In vivo evaluation of commercially available gel-type polyethylene glycol membrane for carrier of recombinant human bone morphogenetic protein-2. ⁷⁷
Jan 2017, Vol. 75, Issue 1	34	1 (2.94%)	Scaffold-based delivery of bone marrow mesenchymal stem cell sheet fragments enhances new bone formation in vivo. ⁷⁸

Anyway, a 3-year experience of the *JOMS* in publishing "Dental Implants" section and the results of this bibliometric study is sending several clear messages to the editorial boards` of other 47 peer-reviewed journals that make up a complete list of publications that fall into the category "oral surgery" at SCImago Journal and Country Rank⁷⁹:

1. Articles focused on pre-implant and implant

surgery continue to stay in the focus of interest of the leading OMS journal reaching 5.43% (2.02 papers per 1 issue) of its total amount of publications. This percentage can be a guiding star for recently launched OMS journals or existing ones.

2. The same and very high total number of articles (446) per year 2017 and 2018 indicates a very strong journal`s reputation among authors and submission levels. What can be supported by a

high 5-year impact factor 1.943.
 3. As the mean of total number of articles per 1 issue is 37.33 papers it's possible, by making the transition to biweekly journal (similarly to the *New England Journal of Medicine*, which is weekly journal), to bring the advantages for the

editorial office, readers, and authors.

Table 4 and **Figure 1** summarize the total of articles and share of articles in "Dental Implants" section in the 36 issues of the *Journal of Oral and Maxillofacial Surgery* during a 3-Year Period (2017-2019).

TABLE 3. Comparison of Number of Articles during 2017- 2019.

Year	Total Number of Articles in 12 Issues of the <i>Journal of Oral and Maxillofacial Surgery</i>	Total Number of Articles in "Dental Implants" Section and Its Percentage from a Total Number of Articles per 12 Issues
2019	446	23 (5.15%)
2018	452	22 (4.86%)
2017	446	28 (6.27%)

TABLE 4. Total of Articles and Share of Articles in "Dental Implants" Section in the 36 Issues of the *JOMS* during a 3-Year Period (2017-2019).

Total Number of Articles in 36 Issues of the <i>Journal of Oral and Maxillofacial Surgery</i> in a 3-Year Period (2017-2019)	Total Number of Articles in "Dental Implants" Section and Its Percentage from a Total Number of Articles per 36 Issues in a 3-Year Period (2017-2019)
1,344	73 (5.43%)

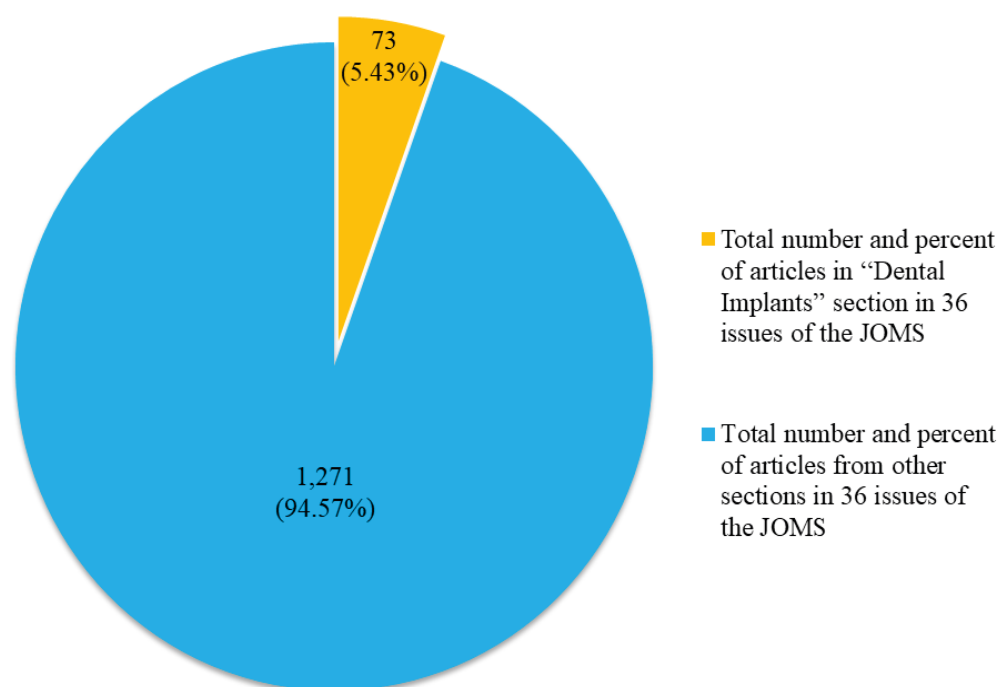


FIGURE 1. Comparison of total number and percentage of articles in the "Dental Implants" section (*orange*) to a total number and percentage of articles from other sections (*blue*) in the 36 consecutive issues of the *JOMS*.

CONCLUSIONS

In summary, the articles focused on implantology continue to stay in the focus of interest of the leading OMS journal (2018 impact factor 1.781) reaching 5.43 percent (2.02 papers per 1 issue) of its total amount of publications. The very high total number of articles (446) per year 2017 and 2018 can indicate a very strong journal's reputation among authors and submission levels. Also, as the mean of total number of articles per 1 issue is 37.33 papers, the increasing of publishing frequency in two times (biweekly journal) can lead to the multiple advantages for the authors, readers, and editorial office.

ROLE OF CO-AUTHORS

Ivan V. Nagorniak: Design of the study, writing, and editing.

Nadim S. Al-Makhamid: Material collection.

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