



Editorial

Clash of Videos in the Cutting-Edge Medical Publications

Oleksii O. Tymofieiev*

Chair, Department of Maxillofacial Surgery, Shupyk National Medical Academy of Postgraduate Education, Kyiv, Ukraine (Prof, ScD)

ABOUT ARTICLE

Article history:

Paper received 2 December 2017

Accepted 4 December 2017

Available online 28 December 2017

“The customers were no longer looking purely for information, but also ‘actionable’ information to tell them what to do”

N. McKinstry, CEO Wolters Kluwer [1]

Introduction

Recently the video becomes deeply integrated into scientific articles of printed and electronic forms of peer-reviewed journals and textbooks. The journals at the fields of oral and maxillofacial surgery, head and neck surgery are among leading ones [2, 3]. The goal of this Editorial is to illustrate how the process of video integration is possible on the example of peer-reviewed cutting-edge scientific publications.

First we want to highlight the most prominent, #1 Journal in the field of Plastic Surgery – *Plastic and Reconstructive Surgery*® (PRS). PRS is a peer-reviewed medical journal and the official publication of the American Society of Plastic Surgeons (www.plasticsurgery.org). Its impact Factor is incredibly high – 3.784. Being the Journal dedicated to practical part of medicine its readers are the first among other medical specialties who needed the precise understanding how surgical techniques should be performed. Every article with video content marked in PRS with special symbol and word ‘VIDEO+’ (Fig 1).



The Six-Step Lower Blepharoplasty: Using Fractionated Fat to Enhance Blending of the Lid-Cheek Junction

Ronnie A. Pezeshk, M.D.
David A. Sieber, M.D.
Rod J. Rohrich, M.D.
Dallas, Texas



Summary: Lower lid blepharoplasty is one of the most complex procedures performed by plastic surgeons and may cause significant long-term sequelae, including inadequate aesthetic outcomes if not performed with a thorough understanding of anatomy and proper technique. The authors’ practice is consistently evolving to deliver the highest quality results for their patients. The purpose of this article is to introduce an additional sixth step to the lower lid blepharoplasty procedure involving the targeted injection of fractionated fat to better blend the lid-cheek junction. This added step will enhance overall facial rejuvenation, is reproducible, and will provide patients with exceptional outcomes. (*Plast. Reconstr. Surg.* 139: 1381, 2017.)

The evolution of the lower lid blepharoplasty Superficial and deep fat compartments are

FIGURE 1. Cropped screenshot from the title of article Pezeshk RA, Sieber DA, Rohrich RJ. The six-step lower blepharoplasty: using fractionated fat to enhance blending of the lid-cheek junction. *Plast Reconstr Surg* 2017;139(6):1381–3 [1] (www.journals.lww.com/plasreconsurg/pages/default.aspx). Existence of video in that article marked by ‘VIDEO+’ (arrow) and red symbol (curved arrow)

* Corresponding author. Department of Maxillofacial Surgery, Shupyk National Medical Academy of Postgraduate Education, 4-a Pivvysotskogo Street, Kyiv 01103, Ukraine. Tel., fax: +38 (044) 528 35 17. E-mail address: tymofeiev@gmail.com (O.O. Tymofieiev) Instagram: [oleksii.tymofieiev](https://www.instagram.com/oleksii.tymofieiev); [dt_journal](https://www.instagram.com/dt_journal)

And has an obligatory guide in a box (Fig 2) how to use a link for a video: “Video Plus content is available for this article. Direct uniform resource locator (URL) citations appear in the printed text; simply type the URL address into any Web

browser to access this content. Clickable links to the material are provided in the HTML text of this article on the *Journal’s* website (www.PRSJournal.com)” [1]. Each page can contain from one to three/four videos (Fig 3 and 4) [2, 3].

be prevented with a thorough appreciation of the delicate periorbital anatomy and sound technical expertise.¹⁻⁵ For the past 3 years, the senior author (R.J.R.) has incorporated an additional sixth step to the lower blepharoplasty intended to better blend the lower lid and cheek junction with fractionated fat consisting of stromal cells, devoid of intact adipocytes.⁶ This article and accompanying video provide a better understanding of how to blend the lower eyelid–cheek junction in a safe and reproducible manner.

single side-hole cannula approximately one fingerbreadth below the orbital rim. (See Video, Supplemental Digital Content 1, which demonstrates the six-step lower blepharoplasty, available in the “Related Videos” section of the full-text article on PRSJJournal.com or, for Ovid users, at <http://links.lww.com/PRS/C174>.) This corrects malar deflation, uneven texture, and the inverted-V deformity seen with deep malar fat pad atrophy.¹¹ Overcorrection is not necessary. Volumization and contouring of the deep cheek fat compartment plays an integral

STEP 1: DEEP MALAR FAT COMPARTMENT AUGMENTATION

Detailed understanding of the complexities in superficial and deep fat compartments from previous cadaveric investigations, particularly in the cheek, have allowed plastic surgeons to combat facial aging by reversing the deflation process.^{7,8}

Disclosure: *The authors have no financial interests in this research project or in any of the techniques or equipment used in this study. Rod J. Rohrich, M.D., receives instrument royalties from Eriem Surgical, Inc., and book royalties from Thieme Medical Publishing. No funding was received for this article.*

Video Plus content is available for this article. Direct URL citations appear in the printed text; simply type the URL address into any Web browser to access this content. Clickable links to the material are provided in the HTML text of this article on the *Journal’s* website (www.PRSJournal.com).

*From the Department of Plastic Surgery, University of Texas Southwestern Medical Center; and the Dallas Plastic Surgery Institute.
Received for publication February 2, 2016; accepted August 31, 2016.
Copyright © 2017 by the American Society of Plastic Surgeons
DOI: 10.1097/PRS.0000000000003398*

www.PRSJournal.com

1381

FIGURE 2. Cropped screenshot from the 1st page of article Pezeshk *et al*, 2017 [1] (www.journals.lww.com/plasreconsurg/pages/default.aspx). Each article with video content has a guide in a box (curved arrow) how to use the video link noted in the text (red marks).

Plastic and Reconstructive Surgery • June 2017



Video. Supplemental Digital Content 1, which demonstrates the six-step lower blepharoplasty, is available in the “Related Videos” section of the full-text article on PRSJJournal.com or, for Ovid users, at <http://links.lww.com/PRS/C174>.

role in improvement of the tear trough deformity and creates a base to further refine the lid-cheek junction.

blunt manner through the supraperiosteal plane. The preoperative tear trough markings will guide the surgeon in determining where and how much

FIGURE 3. Cropped screenshot from the page with video image of article Pezeshk *et al*, 2017 [1] (www.journals.lww.com/plasreconsurg/pages/default.aspx).



Video 1. Supplemental Digital Content 1, which depicts performance of posterior cranial vault distraction on a skull model. This video is available in the “Related Videos” section of the full-text article on PRSJournals.com or at <http://links.lww.com/PRS/C202>.



Video 2. Supplemental Digital Content 2, which depicts performance of posterior cranial vault distraction on an infant with syndromic craniosynostosis. This video is available in the “Related Videos” section of the full-text article on PRSJournals.com or at <http://links.lww.com/PRS/C203>.

provide objective metrics by which to evaluate their conclusions.³¹

Even when patients have had successful

step osteotomies and intercalated bone grafts. The ability to delay fronto-orbital advancement

FIGURE 4. Cropped screenshot from the page with several video at page of article Taylor JA, Bartlett SP. What's new in syndromic craniosynostosis surgery? *Plast Reconstr Surg* 2017;140:82e [2] (www.journals.lww.com/plasreconsurg/pages/default.aspx).

Other peer-reviewed Journals like *Journal of Oral and Maxillofacial Surgery* [4]. (www.joms.org) gives another type of video integration into articles. The *Journal* is published monthly on behalf of the American Association of Oral and Maxillofacial Surgeons (www.aaoms.org). The *Journals'* Impact Factor is 1.916. For example, at the article of Qaisi *et al*, 2016 [4] we can see a different type of video integration. They place only word 'video' and its number near some notion about Figure and print the word 'video' in other color. For example: (Fig 5C, video 1) [4]. And the readers can go to a video being at the website of the *Journal*, but it is impossible to go and watch that movie reading PDF file.

Secondly we move to the videos which are integrated into the textbooks. Initially the publishing houses and authors added a CD/DVD to their books (Moy and Fincher, 2006) [5]. So the video content is revolutionized precisely into book pages. As we can see in the *Orthognathic Surgery: principles and practice* (Posnick, 2014) [6], in which the notes about video of some surgical technique are placed into the book chapters. For example in Chapter *Sequence of Orthognathic Procedures: Step-by-Step Approach* the notion about video content is indicated in text in the next manner – (Video 6 and 7) with an obligatory label of video [6]. Totally the 2 Volume Set textbook of Dr. Posnick consist of more than 40 videos. And the storage of the videos is at the textbook website of the publishing house (www.elsevierorthognathicsurgery.com). Every reader who's bought the book has an access to that collection of video via unique code noted in each book.

An absolutely new smart way how to integrate video into publications offers a team of radiologist from Hong Kong (SAR) China (Ahuja *et al*; 2017) [7]. Their new

textbook *Essential Radiology for Students, Interns and Residents* contains 1100 unique QR-codes (Figs 5-7), quick scan of which via smartphone gives the readers a possibility in several clicks of smartphone (opening a QR-code reader and scanning) watching cine loops (video).

TERMINOLOGY

Cine film literally means “moving” film; deriving from the Greek “kine” for motion; it also has roots in the Anglo-French word 'cinematograph', meaning *moving picture* [8].

Loop (noun) a series, or process, the end of which is connected to the beginning [9].

A cine loop (synonyms: cine-loop, cineloop) is a period of images (CT, MRI scans, ultrasound images), stored digitally as a sequence of individual frames in one movie [9]. According to Ahuja *et al*, 2017 [7] each cine loop contains consecutive images covering the area scanned during the examination. In many cases, the cine loops are of scans in different planes (sagittal, coronal or oblique), in different phases of contrast enhancement (pre-contrast, post-contrast arterial/ venous/ equilibrium/ delayed), and for MRI in different sequences (T1W/ T2/ PD/ DWI etc.)

QR code (abbreviated from Quick Response Code) is the trademark for a type of matrix barcode (or two-dimensional barcode) first designed for the automotive industry in Japan by Denso Wave in 1994 [10]. Denso Wave is a subsidiary that produces automatic identification products (bar-code readers and related products), industrial robots and programmable logic controllers [11].

The QR codes can be scanned (read) via QR Code

Reader & Barcode Scanner (for iOS users), QR Code Reader (for Android users) etc. Nowadays the QR codes can be easily generated by anyone. And it will take only a several seconds. For that purpose the person can use free

online generator (for example www.goqr.me, etc.) or QR code generator software. And nowadays the QR codes can be generated for Web links (URLs), texts, vcards, geolocation, etc.

3 Nasopharyngeal Carcinoma

Introduction

- Nasopharyngeal carcinoma (NPC) is a common seen head and neck cancers, particularly in southeast Asia.
- Clinical presentations include:
 - Nasal symptoms: nasal obstruction, epistaxis
 - Hearing: hearing loss, otitis media
 - Neck swelling due to cervical nodal metastasis
 - Late: visual impairment, cranial nerve palsy (due to intracranial or orbital extension)

Imaging Features

- MRI
 - Soft tissue mass centered at the nasopharynx
 - Superior extension: skull base (Fig 3e) and intracranial (Fig 3f)
 - Anterior extension: nasal cavity (Fig 3g), Eustachian's tube (otomastoid effusion)
 - Lateral extension: parapharyngeal space (Fig 3h), carotid sheath,
 - Posterior extension: prevertebral muscle (Fig 3g)
 - Inferior extension: oropharynx (Fig 3h)
 - Cervical nodal metastases: retropharyngeal, jugular chain, posterior triangle (Fig 3i)



Fig 3e Sagittal T1 W MRI shows large nasopharyngeal carcinoma (*) invading the sphenoid sinus (→).

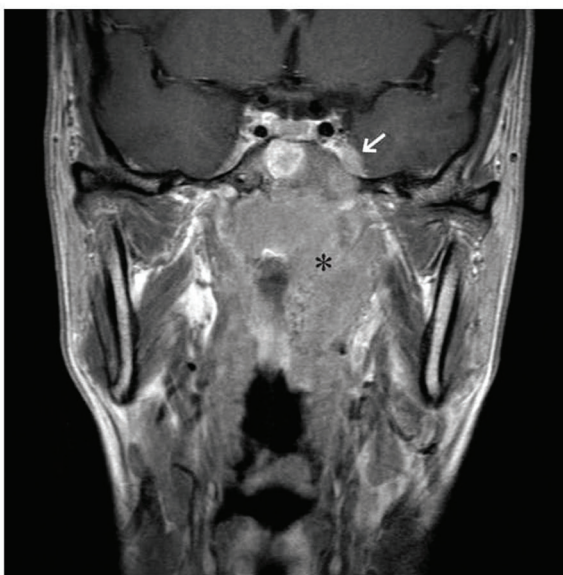


Fig 3f Post-Gd Coronal T1 WFS MRI shows large nasopharyngeal carcinoma (*). Note the small intracranial component the left cavernous sinus (→).



Otomastoid Effusion



Intracranial Extension

Vascular Malformation 6



Fig 6g Axial NECT (same patient as Fig 6f) shows internal hyperdense component (→), suggestive of previous hemorrhage. Overall features indicate a lymphatic malformation with recent hemorrhage.

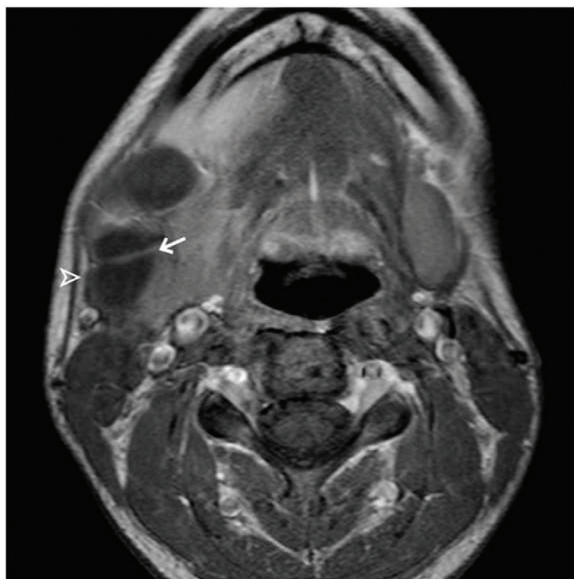


Fig 6h Axial Post-Gd T1 W MRI shows an uncomplicated lymphatic malformation in the right submandibular region (Δ). Note the thin enhancing septa (→).

- Common in young adults
 - Common locations: oral cavity and tongue (Figs 6a-d), orbit (Fig 6e), face, intramuscular (masseter, digastric, sternocleidomastoid)
 - Treatment: percutaneous sclerotherapy, surgery
2. Lymphatic malformation (LM) (Figs 6f-i)
- Slow flow vascular malformation
 - Comprising of lymphatic channels
 - Transpatial / multispatial characteristic
 - Unilocular / multilocular cystic lesion insinuating between adjacent structures
 - **Uncomplicated LM**: thin non-enhancing wall and septations, no vascularity
 - **Hemorrhagic LM**: fluid-fluid level, hyperdense component on CT
 - **Infected LM**: thick enhancing wall and septation with mass effect
 - Common locations: submandibular (Figs 6f-h) and posterior triangle, axilla
 - Treatment: percutaneous sclerotherapy, surgery
3. Arteriovenous malformation (AVM) (Fig 6j)
- High flow vascular malformation
 - Comprises of feeding arteries, nidus and draining veins
 - US/CT: mass lesion with serpiginous vessels. Arterialised flow void can be seen on spectral Doppler ultrasound. Phleboliths / cystic space unusual.



Hemorrhagic LM



Uncomplicated LM



Occipital LM

FIGURE 6. Cropped screenshot from the book *Essential Radiology for Students, Interns and Residents* (Ahuja et al, 2017) [7] shows the readers an example of scientific publication with integrated cine loops via QR-codes on the cases of lymphatic malformations (hemorrhagic, uncomplicated, and occipital).

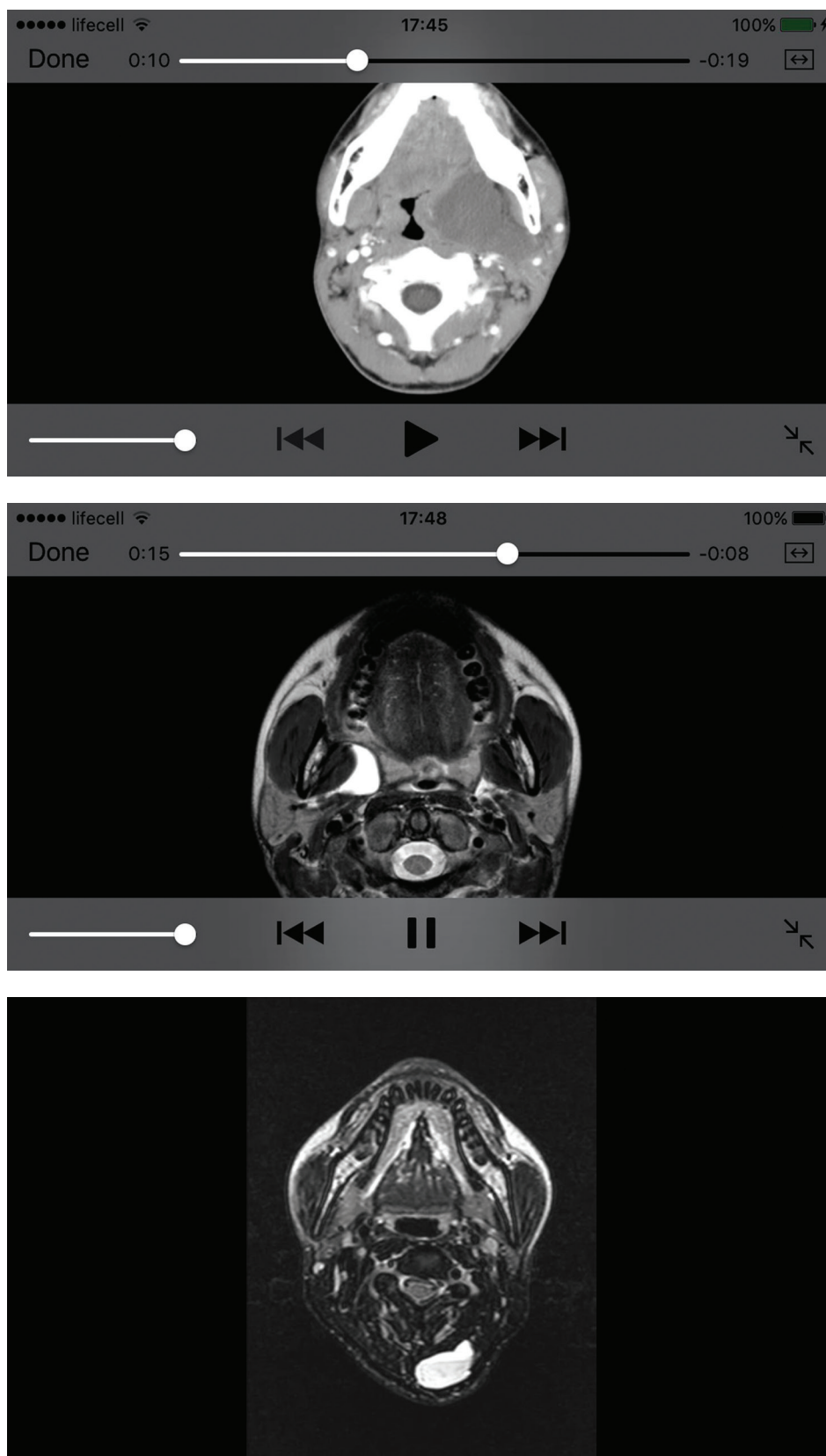


FIGURE 7. Cropped smartphone consecutive screenshots from the YouTube channel (A-C) of the textbook *Essential Radiology for Students, Interns and Residents* (Ahuja *et al*, 2017) shows the readers a place of video storage with which the QR-codes are connected [7]. Thus allowing for the book or journal readers to get a quick access (in three touches at the smartphone: open a QR-code reader, scan the necessary QR-code and open a video at the browser the user like). Cine loops from **Figure 6** shows: hemorrhagic lymphatic malformation (A), uncomplicated lymphatic malformation (B), and occipital lymphatic malformation (C).

STORAGE OF VIDEOS/CINE LOOPS

The journal or textbook publishers can choose different place for storage their videos/cine loops. The choice can differ from the website of the publishing house, journal to YouTube channel or even page of any user of some social network (Instagram, Facebook, etc.) [12].

CONCLUSIONS

Analysis of the whole spectrum of peer-reviewed scientific publications shows first that an urgent need among both readers and practitioners (surgeons, radiologists) for integration of videos/cine loops into papers and books exists. Second, the videos/cine loops should be integrated into print and electronic versions of journals via combination of usage web-links (for the online users or PDF readers) and QR codes. This approach from one hand allows the readers of print versions to watch cine loops/videos via quick scan of QR code. And on other hand the users of online/electronic version of the publication will not lose time with smartphones for scanning QR codes. All that will be needed is just click at the web link. But for the companies that don't want to share electronic copies of the book is more reasonable to use only QR codes.

Nancy McKinstry, CEO Wolters Kluwer, in Management Scope Interview notes that "the customers were no longer looking purely for information, but also 'actionable' information to tell them what to do" [1]. And those words are the holy truth. The role of this 'actionable' information in publications is constantly increasing. And maybe the scientific publication which gives us the best combination of text-picture-video material can win the battle for readers and authors attention.

Acknowledgments

The author would like to thank Rod J. Rohrich (PRS, PRS Global Open, Editor-in-Chief, USA), Aaron G. Weinstein (PRS, PRS Global Open, Senior Managing Editor, USA), Theresa Kircher (Wolters Kluwer Permissions Team, USA), Andrew Richardson (Wolters Kluwer VP of Business Development - Health Learning Research & Practice Division), Mohammed Qaisi (Assis Prof, Department of Oral & Maxillofacial Surgery, USA) for guidance and help in getting permissions. Also wish to thank Anil T. Ahuja (Prof, Hong Kong, SAR), Eric Law (Hong Kong, SAR)

for inspiration and Ievgen I. Fesenko (Managing Editor, Ukraine) for assistance in editing this Editorial.

Publication Permissions

Written permissions of Wolters Kluwer and OMF Publishing, LLC were obtained to publish the cropped images.

References

1. Van Weegen J, Grootengel P. Nancy McKinstry digitizes Wolters Kluwer [document on the internet]; **2017** September 10 [cited 2017 Dec 01]. Available from: <https://managementscope.nl/magazine/artikel/1067-nancy-mckinstry-digitalisering>
2. Pezeshk RA, Sieber DA, Rohrich RJ. The six-step lower blepharoplasty: using fractionated fat to enhance blending of the lid-cheek junction. *Plast Reconstr Surg* **2017**;139(6):1381–3.
3. Taylor JA, Bartlett SP. What's new in syndromic craniosynostosis surgery? *Plast Reconstr Surg* **2017**;140:82e.
4. Qaisi M, Kolodney H, Swedenburg G, Chandran R, Caloss R. Fibula jaw in a day: state of the art in maxillofacial reconstruction. *J Oral Maxillofac Surg* **2016**;74(6):1284.e1–1284.e15.
5. Moy RL, Fincher EF. Procedures in cosmetic dermatology series: blepharoplasty: textbook with DVD. 1st ed. Saunders; **2006**.
6. Posnick JC. Orthognathic Surgery: principles and practice. 1st ed. St. Louis, Missouri: Elsevier Saunders; **2014**.
7. Wong SS, Dai EY, Tang EW, Ahuja AT. Essential radiology for medical students, interns and residents. In: Ahuja AT, Antonio GE, Nung RC, Sitt JC, Yu JW, Wong SS, Dai EY, Law EK, Tang EW, Yuen BT, editors. OMF Publishing, **2017**: 1–50.
8. Cine film [document on the internet]; **2016** April 14 [cited 2017 Dec 01]. Available from: https://en.wikipedia.org/wiki/Cine_film.
9. Dormagen JB, Gaarder M, Drolsum A. Standardized cine-loop documentation in abdominal ultrasound facilitates offline image interpretation. *Acta Radiol* **2015**;56(1):3–9.
10. QR code [document on the internet]; **2017** September 10 [cited 2017 Dec 01]. Available from: https://en.wikipedia.org/wiki/QR_code.
11. Denso [document on the internet]; **2017** August 08 [cited 2017 Dec 01]. Available from: https://en.wikipedia.org/wiki/Denso#Denso_Wave.
12. Tymofieiev OO. Swimming in the oceans of media technologies. *J Diagn Treat Oral Maxillofac Pathol* **2017**;1:57–8.