



Visual abstract for Abdominal Radiology: what it is, why we need it and how to make it

Olga R. Brook¹ · Federica Vernuccio² · Refky Nicola³ · Roberto Cannella^{2,4} · Emre Altinmakas⁵

Published online: 23 January 2021

© The Author(s), under exclusive licence to Springer Science+Business Media, LLC part of Springer Nature 2021

What is visual abstract?

The visual abstract is a short visual summary of the paper's key points. There are two main characteristics of the visual abstract. First, it should be brief and convey just the most relevant message of the paper. The visual abstract is not expected to be a comprehensive synopsis of the paper, but rather it is designed to allow the reader to skim through multiple abstracts to grasp the key findings. The visual abstract should also be self-explanatory. Its main objective is to engage the reader's interest in order for them to read the entire manuscript. Furthermore, the visual abstract should highlight the most important aspect in a visual format. The main points should be conveyed through graphical images such as figures, diagrams or illustrations. The text should be kept to a minimum and font size large enough to allow for immediate and easy understanding.

Why do we need visual abstract?

Visual abstracts were first introduced in *The Annals of Surgery* in July 2016. Since then more than 77 journals [1–4] have adopted this format for the modern pathway to dissemination of scientific information. *Abdominal Radiology*

published the first visual abstract on 20 June 2020. Visual abstracts are now routinely used on Twitter as well as other social media platforms as a prompt way of disseminating scientific information within the medical community. This allows for even more rapid exchange of scientific information.

By tweeting a visual abstract, there has been added value in the dissemination of scientific information. When comparing tweets of articles by title only vs title and visual abstract, tweets with visual abstract have brought 7.7 times more impressions, 8.4 times more retweets and 2.7 times more article downloads [5]. Social media is definitely changing the landscape of medical education and the exchange of information exchange, especially during this COVID-19 pandemic [6].

How to construct visual abstract for Abdominal Radiology manuscripts

Visual abstract for *Abdominal Radiology* should use a standard downloadable template available on the journal website (<https://www.springer.com/journal/261/submission-guide-lines>) with specific background theme and formatting. The abstract should be constructed on a single Powerpoint slide with specified structure (Fig. 1). Background color theme,

✉ Olga R. Brook
obrook@bidmc.harvard.edu

¹ Department of Radiology, Beth Israel Deaconess Medical Center, 1 Deaconess Rd, Boston, MA 02215, USA

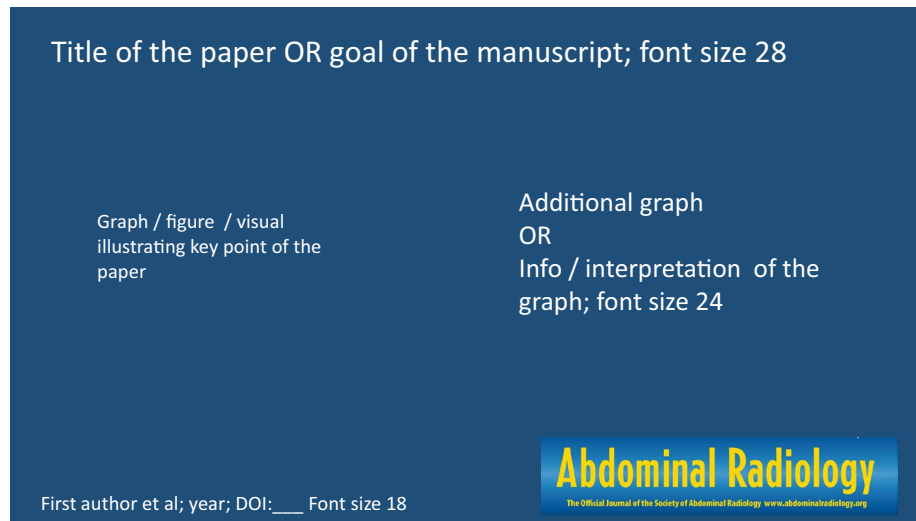
² Department of Biomedicine, Neuroscience and Advanced Diagnostics (BIND), University of Palermo, Via del Vespro 129, 90127 Palermo, Italy

³ Roswell Park Cancer Institute, Buffalo, NY, USA

⁴ Department of Health Promotion, Mother and Child Care, Internal Medicine and Medical Specialties (PROMISE), University of Palermo, Palermo, Italy

⁵ Koç University Hospital, Istanbul, Turkey

Fig. 1 Template for visual abstract for Abdominal Radiology. Font type: Calibri. The *top line* should include title of the paper or main goal of the research (font size 28). *Body* of the visual abstract should include graph/figure/drawing that depicts main finding of the paper. *Bottom line* will include the first author et al. followed by citation that will be added later by editorial staff on the left and logo of the Abdominal Radiology journal on the right



font type, and size should follow the template. Authors should also carefully select one or two images, figures, or drawings that best depict key finding of the paper in a succinct, clear and visual way. In addition, considering that color perception deficiencies are common, certain color

combinations—including red/green, brown/green, blue/black and blue/purple—should be avoided. Examples of previously published visual abstract are shown in Fig. 2. At the bottom of the slide citation to the article should be included.

Fig. 2 a–c Previously published visual abstracts in Abdominal Radiology


(a) Infected versus Sterile Abdominal Fluid Collections in Postoperative CT – A Scoring System Based on Clinical and Imaging Findings

Findings	Score
CRP <150mg/L	0
CRP ≥ 150 mg/L	4
CT attenuation <20 HU	0
CT attenuation ≥ 20 HU	2
Gas entrapment No	0
Gas entrapment Yes	3
Wall enhancement No	0
Wall enhancement Yes	2

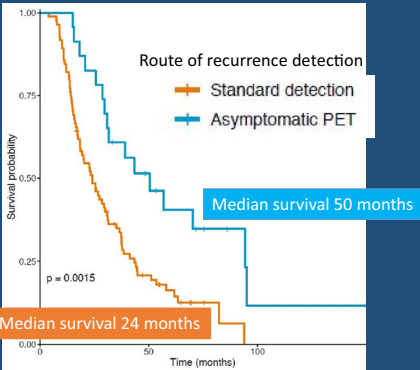
Cutoff to diagnose infected fluid collections ≥ 5 points

Score validated on 425 patients: 93% sensitivity, 80% specificity, 90% PPV, 86% NPV

Radosa CG et al 2020 DOI:.....




(b) PET-detected Asymptomatic Recurrence is Associated with Improved Survival in Recurrent Cervical Cancer

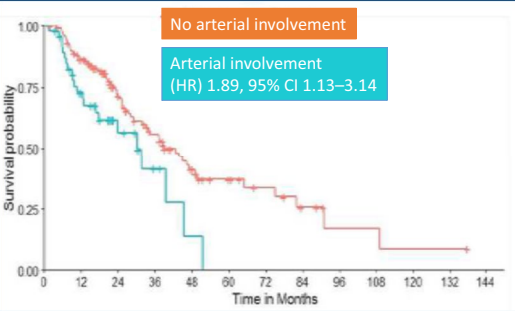


Detection of cervical cancer recurrence by PET in asymptomatic patients ≥ 6 months after chemoradiation was associated with prolonged survival by more than 2 years.

Peters PN et al 2020 DOI: 10.1007/s00261-020-02633-0



(c) Preoperative CT predictors of survival in patients with pancreatic ductal adenocarcinoma undergoing curative intent surgery



Decreased survival:

Entire cohort:

- CHA involved (HR=2.3)
- PV deformity (HR=3.2)


In surgical group:

- Tumor size (HR 2.3)

Neoadjuvant group:

- Venous collateral (HR=2.3)

Dickinson et al 2020 DOI: _____



References

1. Fuster V, Mann D. The Art and Challenge of Crafting a Central Illustration or Visual Abstract. *J. Am. Coll. Cardiol.* Elsevier USA; 2019. p. 2816–2820 <https://pubmed.ncbi.nlm.nih.gov/31779797/>. Accessed November 12, 2020.
2. Gloviczki P, Lawrence PF. Visual abstracts bring key message of scientific research. *J. Vasc. Surg.* Mosby Inc.; 2018. p. 1319–1320.
3. Ramos E, Concepcion BP. Visual Abstracts: Redesigning the Landscape of Research Dissemination. *Semin. Nephrol.* W.B. Saunders; 2020. p. 291–297 <https://pubmed.ncbi.nlm.nih.gov/32560778/>. Accessed November 8, 2020.
4. Lindquist LA, Ramirez-Zohfeld V. Visual Abstracts to Disseminate Geriatrics Research Through Social Media. *J Am Geriatr Soc.* Blackwell Publishing Inc.; 2019;67(6):1128–1131 <https://pubmed.ncbi.nlm.nih.gov/30875100/>. Accessed November 12, 2020.
5. Ibrahim AM, Lillemoe KD, Klingensmith ME, Dimick JB. Visual Abstracts to Disseminate Research on Social Media: A Prospective, Case-control Crossover Study. *Ann Surg.* Lippincott Williams and Wilkins; 2017;266(6):e46–e48 <https://pubmed.ncbi.nlm.nih.gov/28448382/>. Accessed December 1, 2020.
6. Keller DS, Grossman RC, Winter DC. Choosing the new normal for surgical education using alternative platforms. *Surg.* (United Kingdom). Elsevier Ltd; 2020. p. 617–622 <https://pubmed.ncbi.nlm.nih.gov/32904575/>. Accessed November 12, 2020.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.