



COVID-19 in Korea: What Actions Have Been Taken by Radiologists to Support the Fight Against the Disease?

COVID-19에 대한 한국 영상의학과 의사들의 활동상

Sung Shine Shim, MD* 

Department of Diagnostic Radiology, Ewha Womans University Seoul Hospital, Seoul, Korea

In this letter, I will summarize the steps undertaken by the Korean Society of Thoracic Radiology (KSTR), and in particular the administration for the Weekly Chest Cases website (<https://kstr.radiology.or.kr/weekly/>), has undertaken in order to improve the response of the medical community to coronavirus disease 2019 (COVID-19), specifically regarding radiology. Its main goal was to document the field response of medical staff in thoracic imaging, which played a meaningful role in the outstanding results achieved by South Korea against COVID-19.

CREATION OF A RADIOLOGICAL COVID-19 COMMUNICATION NETWORK VIA SMS

At the peak of the COVID-19 outbreak in South Korea on February 29th, 2020, medical workers identified 909 new cases in a single day and the country of 50 million people appeared to be on the verge of being overwhelmed. During this period, we first established an online platform for primary and prompt exchanges of opinions via short message service (SMS). Using this discussion forum, Korean radiologists were able to connect with colleagues in the KSTR community and share useful resources for managing the COVID-19 public health crisis.

TFT FORMATION AND INITIATIVE PLANNING (FEB 27th, 2020)

Subsequently, on February 27, the KSTR formed the Task Force Team (TFT), which exclusively focused on the COVID-19 response and initiated a project to document cases


Received May 2, 2020
Revised May 18, 2020
Accepted May 18, 2020

*Corresponding author
Sung Shine Shim, MD
Department of Diagnostic
Radiology, Ewha Womans
University Seoul Hospital,
260 Gonghang-daero,
Gangseo-gu, Seoul 07804, Korea.

Tel 82-2-6986-3725
Fax 82-2-6986-3764
E-mail sinism@ewha.ac.kr

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ORCID iD

Sung Shine Shim 
[https://
orcid.org/0000-0001-9001-5019](https://orcid.org/0000-0001-9001-5019)

from hospitals in Korea. Specifically, the TFT decided to proceed with three major initiatives:

- 1) Summarization and presentation of COVID-19 chest X-ray and CT images in the field
- 2) Construction, management, and analysis of a COVID-19 clinical image database
- 3) Establishment of a COVID-19 library on KSTR Weekly Chest Cases

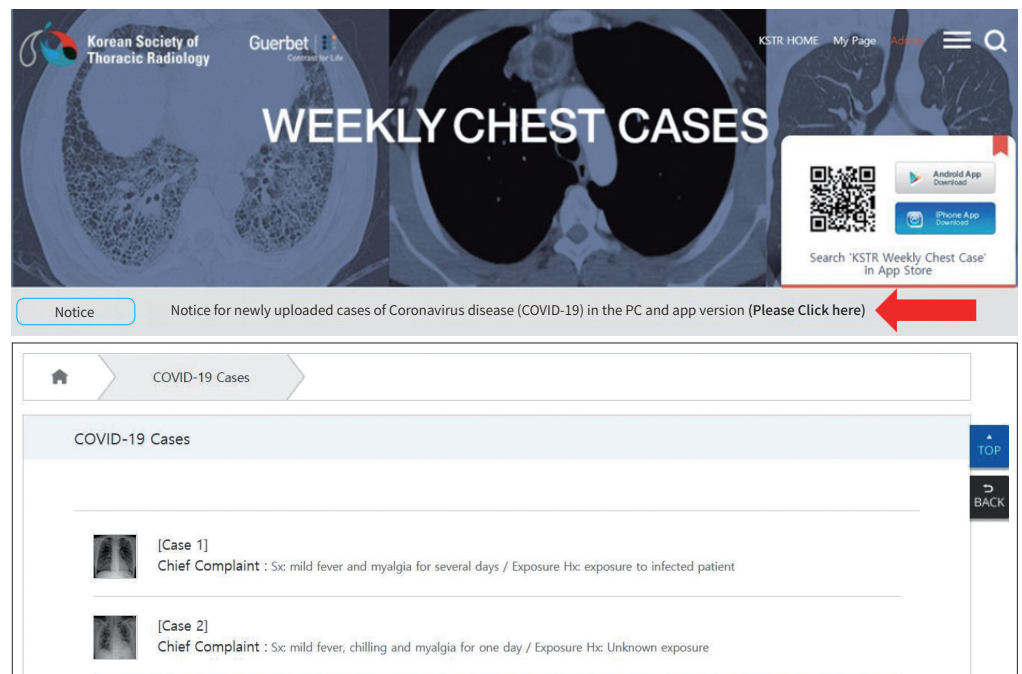
DISSEMINATION OF CASES VIA THE KSTR WEEKLY CHEST CASES SITE (MARCH 9th, 2020)

As the COVID-19 crisis gradually became a pandemic, and the number of cases beyond East Asia began to skyrocket, the KSTR recognized an increasing need for image sharing of COVID-19 cases on a global scale. In particular, the KSTR had expanded the existing Weekly Chest Cases platform to include an independent menu specifically designed for the dissemination of COVID-19 case information and discussions of common imaging findings. As of March 2020, this website has 7400 members across 240 countries and their associated territories, alongside an audience of over 20000 per month.

Immediately following the announcement of case collections among KSTR members, which began with two cases from Busan University, the KSTR received information on COVID-19 cases on a near daily basis. On March 24th, in order to facilitate access and accommodate the growing case archive, the KSTR released a newly upgraded PC and Mobile version of the website (<https://kstr.radiology.or.kr/weekly/corona/>) (Fig. 1A). During this time, the case log had a total of 14 characteristic shared cases and 1500 views.

Following the uploading of COVID-19 imaging data, monthly viewership of the KSTR Weekly Chest Cases website increased by 13000. Approximately 5000 of these views were specifically on the webpage documenting the COVID-19 cases.

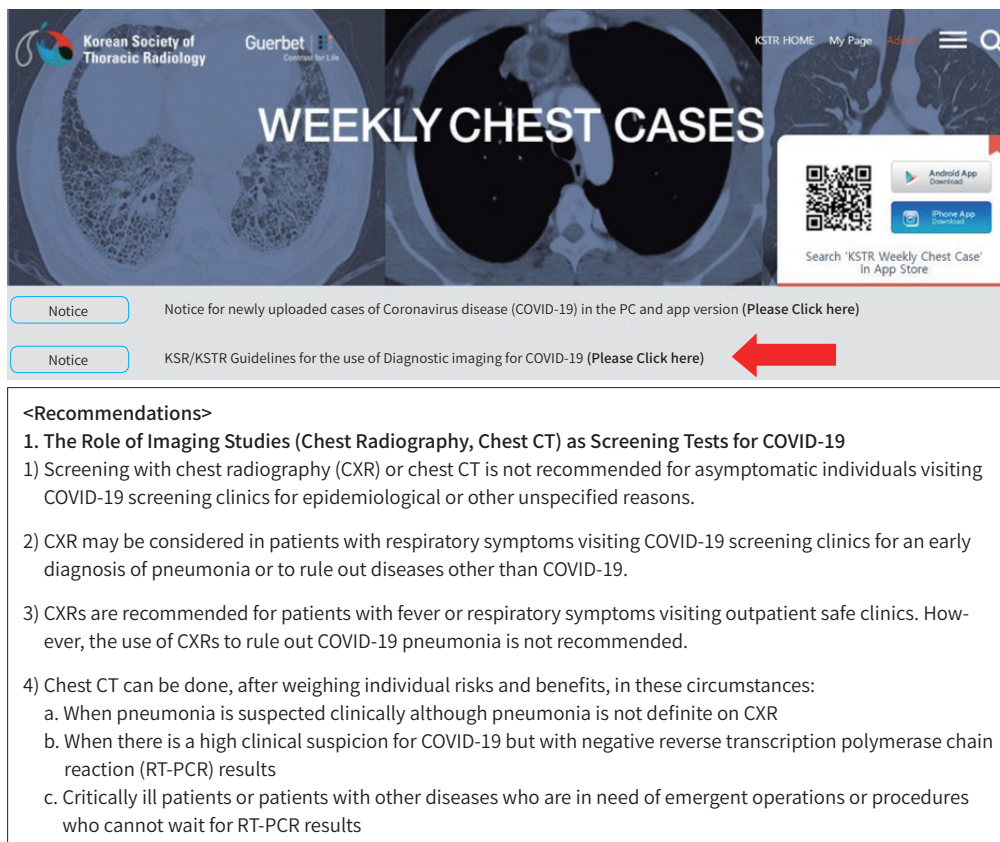
Fig. 1A.



PUBLICATION OF IMAGING GUIDELINES

In early April 2020, diagnostic imaging guidelines for COVID-19 were developed by the combined efforts of an expert panel recommended by the KSTR and the COVID-19 relief headquarters of the Korean Medical Association with additional supervision from the Medical Guidelines Committee of the Korean Society of Radiology (1). Finally, these guidelines were reviewed by the KSTR board of directors and posted on the KSTR Weekly Chest Cases and affiliated sites on April 7th, 2020 (Fig. 1B).

Fig. 1B.



The KSTR has utilized a wide variety of information outlets to share critical knowledge and focus the medical community's attention on effective ways to resolve COVID-19 cases. This includes SMS and e-mails between KSTR members, the KSTR homepage, and the Weekly Chest Cases website.

Previous outbreaks, including severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS) provided us with the experience to formulate a system that would facilitate more effective information and resource sharing between medical professionals.

Based on such past experiences, the KSTR reacted rapidly and effectively during the COVID-19 pandemic. The Weekly Chest Cases website played a vital role in delivering this information both domestically and internationally.

Conflicts of Interest

The author has no potential conflicts of interest to disclose.

REFERENCE

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