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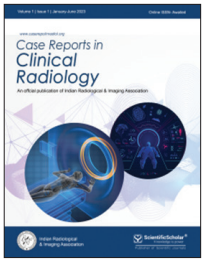
Case Reports in Clinical Radiology



Editorial

Case reports in radiology learning – The story behind the images

Nitin P. Ghonge[1]

[1]Department of Radiology, Indraprastha Apollo Hospitals, New Delhi, India.

***Corresponding author:**
Nitin P. Ghonge,
Department of Radiology,
Indraprastha Apollo Hospitals,
New Delhi, India.

drnitinpghonge@gmail.com

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In the era of evidence-based medicine, when radiology is the backbone of diagnosis and buzzwords such as artificial intelligence and health informatics are trending, it is easy to overlook the value of an enduring educational tool: the humble CASE REPORT. Yet, the case reports remain a cornerstone of radiology learning for the radiologists - both in practice and those in training.

Radiology learning is an interesting mix of understanding the disease pathophysiology as well as mastering the technicalities of an imaging technology. Each scanned image tells a unique story, often rich with clinical nuances and diagnostic pearls. The finer details not only carry information about the anatomy and pathophysiology but also reveal secrets about the patient's habits and lifestyle choices. Even, clinical presentation and scan findings in a same disease vary from patient to patient and often fail to conform to a described pattern and often spring diagnostic surprises. From "common" presentation of a "common" disease to "uncommon" presentation of a "common" disease to "common" presentation of an "uncommon" disease to "uncommon" presentation of an "uncommon" disease, the radiology learning is an "endless voyage."

Case reports provide a structured platform to share these unique stories, bridging the gap between static textbook knowledge and the dynamic realities of clinical practice. Case reports provide descriptive information about the patient's clinical course to share the learning experience with the medical and scientific community.[1] They enable radiologists to gain exposure to rare pathologies, atypical presentations, and the subtleties of differential diagnoses that cannot be captured in scientific studies. Case reports empower the radiologist to interpret the "shades of grey" and to "read between the lines." Despite being low-quality evidence, case reports add to the knowledge base, foster a research culture, and may act as a realistic grassroot activity for a burdened workforce with limited time and resources.[2]

One of its greatest strengths lies in their ability to contextualize imaging findings within a patient's clinical journey. They foster a holistic approach to diagnosis, reminding us that behind every pixel is a patient whose story deserves to be understood for making the correct diagnosis. Moreover, case reports contribute to the collective knowledge, often sparking further research to refine diagnostic strategies.

As radiologists, we have a responsibility not only to learn from case reports but also to contribute our own experiences, irrespective of our practice settings. This allows us to enrich the collective expertise of our field and ensure that the lessons gleaned from individual cases are not lost. Case reports demand primarily a passion for contributing to science, contrasting them with resource-intensive hypothesis-driven studies. Just to give you an example, I once published a case report

on familial occipital encephalocele in a fetus which was also present in the father and grandfather.[3] Months after the publication, I got an email from the University of Iowa (Iowa City, USA) for a research collaboration. I helped with the subsequent workup which helped the study to report the underlying genetic mutation.[4] So, what I initially assumed to be a mere case report helped to shape up a major scientific study with a huge impact.

So, the next time you encounter an intriguing case, do consider writing a case report. Your case report could be the key to unravel a diagnostic puzzle for a colleague or an inspiration for breakthrough research in another corner of this planet.

In radiology, every case tells a story, and every story has the potential to teach.

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