The value of case reports in lung cancer

Despite rapid advances in the field of lung cancer therapeutics and the advent of personalized medicine (1), there are several unmet needs when it comes to treating patients in the real world. Indeed, every patient presents a clinical scenario that is unique to them and oftentimes, therapeutic decisions based on large studies published in literature is not possible. Insights into diverse and complex presentations, diagnostic and therapeutic dilemmas, 'outside the box' treatment strategies, and uncommon/unexpected outcomes are extremely helpful in providing a personalized perspective to existing literature with large patient base. For all these reasons, case reports continue to be very important catalysts in the advancement of science (2).

With evolution of molecular and immunological subclassifications of lung cancer (3,4), and rapid development and approval of several therapeutic agents in the last decade, case reports provide an additional value by allowing clinicians to share unique observations, highlight novel "off-label" interventions for rare presentations, and bring to attention, unforeseen complications that might have not been captured in larger published studies (5).

Additionally, case reports may provide insight into rare subtypes of lung cancer better and provide guidance to peer oncologists who may be posed with a similar situation. Case reports can serve as the starting point for a novel discovery that can then lead to development of innovative therapeutic approach that may be applicable for a large group of individuals.

It is important to recognize however that case reports have many limitations, such as selection bias, lack of generalizability, and inability to establish causality. Nevertheless, when interpreted carefully in the right context, case reports can not only serve as a valuable source of information that can serve as the foundation for treatment strategies for rare diseases or rare clinical scenarios, but also help design clinical trials and transform future therapeutic landscape.

To conclude, case reports that provide unique perspectives on diagnostics and therapeutics in lung cancer should be given due consideration for publication alongside traditional research papers and review articles. Journals should encourage oncologists to share their unique clinical experiences by opening the doors for high quality case reports which should then be subject to a thorough peer-review process before publication.

References

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