

Case Study- Does It Have Any Relevance Now

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A Case Report is a way of sharing information to the medical world about a rare or unreported feature, condition, complication, investigation or intervention of a patient or an anatomical variation by publishing it in a medical journal. Case report and case series describes the experience of one or more people with a disease. It is often the first data alerting a new disease. It has limitations as it is not a controlled or cohort study. Nowadays case reports publication has become an academic duty for the post graduate studies or as a self-study module for the undergraduate students. A case report provides important and detailed information about a disease which is often absent in large studies. Case reports serve as an early warning signal for the adverse effects of new medications, or the presentations of new and emerging diseases [1]. Every published case adds something new to already existing medical knowledge. Many case reports have become legendary as they offered new ideas for the management of already existing diseases or for new diseases. Case reports and case series are very sensitive in picking up fresh clinical material in a qualitative way but not specific for quantitative confirmation [2]. Compared to clinical or laboratory research case reports and case series are more formal and do not provide evidence with the same intensity. Case reports have low citation value and may have a negative impact on a journal's impact factor, so prevalence of case report papers published in high impact periodicals are on decline. In recent years case reports have become a casualty of the pursuit of the impact factor. The value of case reports may be misjudged compared to other publications that are more comprehensive and supported by evidence, but the impact of case reports has been remarkable. In fact, sharing such useful and trustworthy information has led to discoveries and the introduction of therapies for novel diseases. Research in medicine often starts with observations made during patient encounters. Each of us has an ethical responsibility to report our new discoveries and share our new knowledge with our peers. Well-written case reports are source of inspiration for all clinicians and scientists searching for new ideas about clinical care and scientific research [3]. Case reports are valuable resources of unusual information that may lead to new research and advances in clinical practice. Many journals and medical databases recognize the time-honoured importance of case reports as a valuable source of new ideas and information in clinical

medicine [4,5]. 'Father of Modern Medicine', Osler stated that whenever any strange finding is seen always note it down and record the finding and publish it. Journal is a permanent record as a short and concise manner. Such publications are always of great value. McCarthy et al. stated that case reports are scientific observations which are carefully documented, and they are valuable source for future education and research [6]. Case report or case series is the most basic type of study design in which researchers describe the experience of a single patient or a group of patients. The Case report or case series describes the patient who develops a disease or a condition. They present detailed account of the clinical experience of an individual patient. Case series is the next step of study designs. It is a variation of a single case report in which the author describes a small group of patients with comparable clinical features or investigations of a disease and discuss their relation to one another and to the existing body of literature. It presents a detailed account of the clinical experience of individual study subjects and can evaluate substantial numbers of individuals and sum up the data using descriptive statistical methodology [7]. Despite limitations, case series can often have a significant impact on the current practice of medicine, and they are often used to put together case definitions of new diseases and to define future areas of clinical study [8]. There are 190.703 citations with the term of "case report" until November 2012 in PubMed database, and in 1 year the number is on the increase to 200.737 (November 2013). It implies that within one year more than 10.000 case reports published in the database. This large number of citations shows that case reports have made a huge percentage in medical literatures and grow rapidly with time [9]. Case reports, including a single case report, two case reports, or a case series have a time-honoured tradition. From Hippocrates (460 B.C. to 370 B.C.), and the times of papyrus that has the records of ancient Egyptian medicine (c. 1600 B.C.) to modern day, physicians have described interesting cases involving all specialties [10]. In 1817 James Parkinson reported an article with the title "An essay on the shaking palsy", which led to the discovery of the disease carrying the author's name (Parkinson's disease) [11]. Case reports reported that the anorexic agents, fenfluramine and dexfenfluramine produced primary pulmonary hypertension which led to trials that investigated the mechanism and incidence of primary pulmonary hypertension and the drugs was withdrawn from the market [12]. The fact that tobacco smoking caused lung cancer came from surgical patient series in the 1920s and 1930s; it was confirmed by case-control and cohort studies which came decades later [13]. A new entity 'mitochondrial diabetes'-was found by the observation that in some family tree diabetes had a maternal inheritance, which led to the discovery of its molecular mitochondrial basis. Over 100 years the AIDS virus affected people of in the central Africa. The AIDS disease was recognized only when the clinicians observed in the 'total immunodeficiency' in homosexual with no apparent reason for immunodeficiency [14]. Sometimes the discovery of therapeutic advances in medicine happens when unexpected side effects of a drug is reported. Hypoglycaemia in patients with infections who were treated with sulpha drugs led to the development of oral hypoglycaemics.

Side effects of some drugs produce diseases that were previously non-existent or unrecognized. For example, specific forms of valvopathy with slimming drugs, or retrorenal fibroplasia [2]. Sudden deaths occurred during or immediately after intravenous infusion of high dosages of an anti-emetic, domperidone. More deaths were reported independently by physicians due to intractable arrhythmias following domperidone injection. The intravenous form was withdrawn from the market [15]. Congenital rubella syndrome was identified when a causal link was found between a severe epidemic of rubella and infants born with congenital cataracts and cardiac abnormalities in Australia in 1941. A case of pulmonary embolism in a 40-year-old pre-menopausal woman, five weeks after taking an oral contraceptive (OC) to treat endometriosis was reported. More detailed studies have consistently shown that there is an association between the use of OCs and the risk of pulmonary embolism. Dr. Jones first published his paper entitled "The Diagnosis of Rheumatic Fever." which is taken as standardized

diagnostic criteria for Rheumatic Fever. Without standardized criteria the rheumatic fever might have missed in many patients. The importance of case report is increasing as new diseases can be observed and characteristics of this disease can be reported in detail in the format of case report. When a new clinical feature of a disease or a new illness is detected it must be reported first in the case report format. As more similar diseases are detected then the studies develop to more sophisticated designs, like controlled study, cohort research or clinical trial.

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