

## Epidemiology of Gestational Choriocarcinoma: A Systematic Review

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**Abstract :** Gestational choriocarcinoma is a condition in which there is an abnormal growth or a tumor inside the women's uterus after conception. It is a type of gestational trophoblastic disease which is relatively rare and malignant. The current epidemiological data of this disease are inadequate. The purposes of this study are to examine the epidemiology of choriocarcinoma and their risk factors based on all available population-based and hospital-based data of the disease. In this study, we searched The MEDLINE and Cumulative Index to Nursing and Allied Health Literature (CINAHL) databases using the keywords 'choriocarcinoma', 'gestational', 'gestational choriocarcinoma' and 'epidemiology'. We included only human studies published in English between 1995 and 2015 to ensure up to date evidence. Case studies, case reports, animal studies, letters to the editor, news, and review articles were excluded. Retrieved articles were screened in three phases. In the first phase, any articles that did not match the inclusion criteria based solely on titles were excluded. In the second phase, the abstracts of remaining articles were screened thoroughly; any articles that did not meet our inclusion criteria were excluded. In the final phase, full texts of the remaining articles were read and assessed to exclude articles that did not meet the inclusion criteria or any articles that fulfilled the exclusion criteria. Duplicates articles were also removed. Systematic reviews and meta-analysis were excluded. Extracted data were summarized in table and figures descriptively. The reference lists of included studies were thoroughly reviewed in search for other relevant studies. A total of ten studies met all the selection criteria. Nine were retrospective studies and one was cohort study. Total numbers of 4563 cases of choriocarcinoma were reviewed from several countries which are Korea, Japan, South Africa, USA, New Mexico, Finland, Turkey, China, Brazil and The Netherlands. Different studies included different range of age with their mean age of 28.5 to 30.0 years. All studies investigated on the disease's incidence rate, only two studies examined on the risk factors or associations of the disease. Approximately 20% of the studies showed a reduction in the incidence of choriocarcinoma while the other 80% showed inconsistencies in rate. Associations of age, fertility age, occupations and socio-demographic with the status remains unclear. There is limited information on the epidemiological aspects of gestational choriocarcinoma. The observed results indicated there was a decrease in the incidence rate of gestational choriocarcinoma globally. These could be due to the reduction in the incidence of molar pregnancy and the efficacy of the treatment, mainly by chemotherapy.

**Keywords :** epidemiology, gestational choriocarcinoma, incidence, prevalence, risk factor

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