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Titel des Beitrags:
The checkpointkinase 2 (CHK2) 1100delC germ line mutation is not associated with the development of squamous cell carcinoma of the head and neck (SCCHN).

Abstract:
The checkpointkinase 2 (CHK2) is part of the highly conserved ATM-CHK2 signaling pathway, which is activated in response to DNA damage, in particular after double strand breaks which can be caused by carcinogens like smoking. After induction of downstream targets, e.g. the tumor suppressor p53, its activation leads to cell cycle arrest and apoptosis. Recently, the presence of CHK2 germ line mutations, primarily the 1100delC variant, has been reported to be involved in carcinogenesis. The CHK2 1100delC variant results in a truncated protein which is instable and inactive. Carriers of this variant have been shown to have an increased risk to develop breast cancer and probably also other tumors. Our purpose was to investigate the role of CHK2 germ line mutations in patients with squamous cell carcinoma of the head and neck (SCCHN). We investigated 91 patients suffering from SCCHN including all tumor sites (oropharynx, hypopharynx, larynx) for the presence of the germ line mutation 1100delC by direct sequence analysis. Patients were characterized by their tumor localization, tumor stage, age, the presence of additional malignant tumors and predisposing carcinogens (smoking, alcohol abuse). None of the patients, independently of the tumor site, age, the abuse of predisposing carcinogens, or the presence of other kinds of tumors, carried the CHK2
The germ line CHK2 1100delC variant does not seem to have a major impact on the development of SCCHN.