

Microsatellite instability in young women with endometrioid type endometrial cancer

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Abstract

Background: This study was designed to determine the frequency of Microsatellite Instability (MSI) in young Iranian patients with endometrial carcinoma and to evaluate its association with histopathologic and clinical features of disease. **Methods:** Microsatellite status was analyzed in ۳۳ patients with endometrioid type endometrial cancer who were less than ۳۰ years. Clinicopathologic characteristics such as age, International Federation of Gynecology and Obstetric (FIGO) grading and staging of tumor, family history of Hereditary Non-polyposis Colorectal Cancer (HNPCC), oral conception (OC) consumption, number of pregnancies, fertility, menstrual cycles and underlying disease were considered. Chi-square and Fisher exact tests were used to find the significant relationships. **Results:** MSI analysis showed ۸ patients (۲۴,۲۴%) were MSS (Microsatellite Stable), ۱۰ patients (۳۰,۳۰%) were MSI positive. Among cases with MSI phenotype, ۴ cases (۱۳,۱۳%) had low instability (MSI-L) and ۱۱ cases (۳۷,۳۷%) had high instability (MSI-H). Three cases with MSI-H had family history of HNPCC related cancers. Five cases (۱۵,۱۵%) had infertility in which ۴ of them (۸۰%) had MSI phenotype. There was no statistically significant relationship between MSI phenotype and tumor grade and stage. **Conclusion:** Few studies reported high frequency of MSI among young patients. Some studies mentioned similar results in endometrioid type of tumor. This study showed even higher frequency (۳۰%) when MSI analyzed in young endometrioid type endometrial patients. Most cases with infertility had MSI-H phenotype. It may suggest that beside women with family history of HNPCC, EC screening using MSI would be beneficial in infertile women too.

Reaxys Database Information

Author keywords

Endometrial cancer; Endometrioid; Iran; Microsatellite instability; Young patients

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