Screening of BRCA1 Mutations Using C-terminal Antibody in Sporadic non Familial Colonic Carcinoma

Reham Sh. Esmail, Walid M. Sharaf, Noha A. Helmy, Abdel Razik H. Farrag, Manal A. Badawi, Amina A. Gamal Eldin

Abstract

Background: Cancer colon is one of the most prevalent cancers in Egypt. Sporadic cancer colon is
much more common than familial type; the latter accounting for not more than 30% of the reported cases
in different registrations. BRCA1 is a tumor suppressor gene which is proved to be mutated in many
cancer types. Limited studies tried to screen its mutation in cancer colon.
Aim: This work is aimed to screen BRCA1 mutations using C-terminal antibody in sporadic non familial colonic carcinoma.
Subjects and Methods: Fifty colectomy specimens were collected. Sections of paraffin blocks were cut (μm thickness), then stained with Hematoxylin and eosin and evaluated for tumor type and its nuclear grade and its stage. Immunohistochemical studies for BRCA1 were performed. **Results**: positive nuclear immunostaining of BRCA1 staining was detected in 84% of the cases, with insignificant correlation with both the grade and the stage $p \sim 0.42$, $p \sim 0.31$ respectively.
Conclusion: This type of staining denies a direct role of BRCA1 axon 11 mutations in sporadic colonic cancer - unlike some sporadic ovarian and breast cancers - and may point to that BRCA1 may share in the early tumorogenesis in a way other than the usual mutation of exon 11.

مكان النشر وتاريخ النشر :

Macedonian Journal of Medical Sciences. 2012 Dec 15; 5(4):377-381.