

S27. Cancer Prevention in the Different Genetic Risk Groups for Colorectal Cancer

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Five to ten percent of colon cancers are related to autosomal-dominantly inherited predispositions known as hereditary colorectal cancer syndromes. These can be subdivided into those displaying a pre-existing polyposis which can be hamartomatous or adenomatous (neoplastic) in nature and into those without this phenomenon. Hereditary non polyposis colorectal cancer (HNPCC) belongs to the latter group and is clinically and genetically well characterised..

In hereditary colorectal cancer syndromes preventive measures cannot be limited to the gut since other organs can also be affected. This demands rigorous surveillance programmes e.g. in Peutz-Jeghers or Cowden syndromes especially since no chemopreventive agents have so far been shown to decrease hamartomatous polyp formation in humans.

For persons with classical familial adenomatous polyposis (FAP), colectomy is recommended as a preventive measure after adenomas emerge. For those with an attenuated form surveillance with periodic colonoscopic polypectomy may be sufficient. Nonsteroidal

anti-inflammatory drugs have been shown to cause regression of adenomas. However, its use should not replace surveillance and colectomy.

Prophylactic colectomy is generally not recommended for individuals with HNPCC because routine colonoscopy is an effective preventive measure. However, if colon cancer is detected, full colectomy with ileorectal anastomosis is advisable. Oral contraceptive use may reduce the risk of endometrial and ovarian cancer in women with HNPCC as has been observed in a woman suffering from FAP.

The benefits of genetic counselling and testing in cancer prevention should also be made available to family members who may have inherited the cancer predisposition.

Hereditary cancer syndromes offer in vivo models to study carcinogenesis and the influence of novel preventive strategies. Therefore, its improved understanding will be of benefit not only to persons with the rare traits, but also to the population at large.