INAHTA Brief

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Title Intraoperative radiation therapy in the treatment of colorectal cancer

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Reference http://www.sergas.es/docs/Avalia-t/riocolon/avalia-t201215RioColon-def.pdf

Aim

To assess the effectiveness and safety of IORT as a boost for the current standard treatment of colorectal cancer.

Conclusions and results

The results of studies that assess IORT as a booster dose indicate that this combination does not amount to an increase in terms of effectiveness and overall survival, nor does it entail a significant reduction in terms of safety with respect to conventional external radiation treatment. These results are drawn from studies of little methodological rigour, and there are no clinical trials that would go to confirm them. Administration of IORT in locally advanced disease is associated with an incidence of recurrences and metastasis comparable to that of conventional treatment and, despite showing low toxicity, does not improve the toxicity of conventional treatment to any significant degree. This evidence is based on two RCT and on observational and descriptive studies. In recurrent disease the available evidence is much more limited. Indeed, the results of the studies included give rise to important doubts regarding the utility of intraoperative radiation therapy in patients with locally advanced or recurrent rectal cancer.

Recommendations

Given the poor evidence that is available, is not recommended the incorporation of IORT into the health system. Additional information from the clinical trial currently underway maybe modify the recommendation on its incorporation. The implementation of IORT, requires the establishment of clear criteria and uniform of selection of patients, the creation of multidisciplinary teams, the design of a suitable protocol for working with strict adherence to the same and of a quality control of each stage of the procedure.

The predictable low frequency of use of this technique, you would recommend its implementation in hospitals specializing in the treatment of cancer and in the shortest number of centers as possible, to minimize the learning curve and ensure the technical prowess of the professionals.

Methods

A systematic review of the literature was conducted, from January 2000 to August 2013, in the following databases: CRD (Health Technology Assessment, Database of Abstracts of Reviews of Effectiveness, NHS Economic Evaluation Database), Cochrane Plus Library, Medline, Embase, ISI Web of Knowledge, CSIC-*Índice Médico Español*, Clinical Trials Registry, WHO International Clinical Trials Registry Platform and Current Controlled Trials. This process was completed by a general search of quality Internet web pages. Two reviewers, acting independently, selected the papers in accordance with pre-established inclusion and exclusion criteria, with any disagreements being resolved by consensus. Lastly, a manual review was performed of the bibliographic references cited in the papers selected. Data were extracted and summarised in evidence tables. Study quality was assessed using the Scottish Intercollegiate Guidelines Network scale.

Further research/reviews required

Further quality studies are needed to allow firm conclusions, especially in recurrent rectal disease. It is recommended to investigate the role of IORT in patients with recurrent disease previously irradiated.

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