Elective surgery for ulcerative colitis, ileo-rectal anastomosis or restorative proctocolectomy

An Update

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Elective surgery for ulcerative colitis, ileo-rectal anastomosis or restorative proctocolectomy. An Update

Background: *Despite advances in the medical management of Ulcerative Colitis (UC), surgery is required in about a third of patients.*
Aims And Methods: *A review of the literature of the last 20 years was conducted in order to analyze the results of Ileo-Rectal Anastomosis (IRA) and of Ileal Pouch-Anal Anastomosis (IPAA) in the treatment of mild-to-moderate UC. Postoperative complications, functional results and the risk of cancer were analyzed in each of the two groups of patients.*
Results: *In IRA group postoperative morbidity is low, varying from 8 to 28%. The risk of urinary and sexual dysfunction are rare and fertility rates are higher, compared to IPAA. The cumulative probability of success (working IRA) is 84% at 5 years and 51-69% at 10 years. The postoperative morbidity of IPAA is higher; dehiscence and pelvic sepsis were observed respectively in 9.5% and in 5.5%. A sexual dysfunction is present in 3.4%. In 18.8% occurs pouchitis. The risk of failure of the pouch is 6.8% and increased to 8.5% after 5 years. The risk of cancer is higher after IRA than after IPAA, with a cumulative risk at 20 years of 6-14% and 4.2% respectively.*
Discussion: *The choice between IPAA or IRA is based upon patient's preference and clinical criteria (malignancy or sphincter injury). IPAA, intervention of choice, is burdened by a higher rate of complications, such as anastomotic leak with pelvic sepsis and subsequent functional pouch failure, pouchitis, infertility in young women, lesions of the pelvic nerves and portal vein thrombosis. There have been reports of cancer not only in the anal transitional zone, but also in the same pouch, either after mucosectomy that after stapled anastomosis. IRA is less invasive than IPAA and postoperative complications are lower. Does not require dissection of the pelvic and presents no risk of injury of the nerves of the urogenital sphere. The long-term results of the IRA are generally satisfactory and most of the patients stated that after the intervention improve both the health status and quality of life.*
Conclusion: *Today IPAA is the gold standard. The IRA is indicated in selected patients where they meet the following requirements: normal sphincter tone, absence of severe perineal disease, rectum does not actively involved by the disease, absence of dysplasia or cancer. It is also indicated in patients who refuse an ileostomy and it can be proposed as a possible interim procedure in young women, because it does not need a pelvic dissection and because the risk of infertility is minimal or absent when compared to IPAA. Because the risk of cancer is higher, patients undergoing IRA must be adequately informed about the risk, as well as recurrent proctitis, also of cancer, and must fully understand the need for surveillance and accept at least annual endoscopy with rectal biopsies; if these conditions are not met, patients should not be candidates for IRA.*

Key words: IPAA, IRA, Surgical treatment, Ulcerative Colitis

Introduction

Despite advances in the medical management of Ulcerative Colitis (UC) surgery is required in about a third of patients (pts) [1-10]. The indications for surgery

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vary according to the severity and extent of disease, as well as the type of complication [5,8,9,11,12]. Surgical treatment of Severe Acute Colitis (ASC) has been already reviewed in our recent studies [13,14]. The indications for elective surgery are failure of medical therapy (intractable disease, poorly controlled disease, bad quality of life due to severe persistent symptoms, recurrent acute episodes, steroid dependency in whom alternative medications are unsuccessful and the long-term side effects of drugs are not acceptable), extraintestinal manifestation (when medications are not curative), stricture formation, malignant transformation (dysplasia or carcinoma), growth retardation of children, retained rectal stump following previous colectomy [4,5,8,9,13-18].

Surgical options for pts suffering from UC refractory to medical therapy are three: Total Procto-Colectomy (TPC) with end-ileostomy (a Brooke ileostomy or a continent ileostomy-Kock pouch- in selected cases), Restorative Procto-Colectomy i.e. Ileal Pouch-Anal Anastomosis (IPAA) and Colectomy with Ileo-Rectal Anastomosis (IRA) [5,8,15,19-21].

The IPAA described by Parks in 1978 [22], has become, in the following years, the procedure of choice, both for good long-term functional results and low risk of cancer [5,9]. Although today IPAA is the ideal intervention in the surgical treatment of UC [5,9,23,24], IRA, only in appearance technically less demanding, has recently experienced a revival and can provide satisfactory results in selected cases [19,20].

Aim and Methods

A review of the literature of the last 20 years has been done in order to analyze the results of IRA and comparing them with those of IPAA in the treatment of mild-to-moderate UC. The surgical treatment of the ASC escapes this review. A systematic search was conducted using Pub Med, Medline, Scopus, Cochrane database. The key words were: management of ulcerative colitis, surgery of ulcerative colitis, subtotal colectomy and ileorectal anastomosis, procto-colectomy and ileal pouch-anal anastomosis, restorative proctocolectomy.

Postoperative complications and functional results have been evaluated on one side, and on the other side the risk of cancer in each of the two groups of patients, undergoing IRA or IPAA). The ultimate goal was to analyze the advantages and disadvantages of the two surgical procedures and identify patients who, properly selected, could better benefit from a type of intervention rather than the other.

Results

Morbidity and Functional Results

IRA group. Postoperative morbidity and mortality are low, varying respectively from 8 to 28% and from 0 to 4% [19,25-33]. Postoperative complications reported are bowel obstruction, anastomotic leak, abdominal abscesses [19,29]. The incidence of anastomotic leak ranges from 2% to 9% [19,25,27,29,31-33]. The rare cases of death are due to sepsis secondary to anastomotic leak or pulmonary embolism [9,19,20,25-33].

IRA involves a negligible risk of urinary and sexual dysfunction, and fertility rates are higher when compared to those seen in pts undergoing IPAA [33]. The IRA functional results are on the whole satisfactory [27-30,32] and the cumulative probability of success (working IRA) is equal to 84% at 5 years [28,30] and between 51% [27] and 69% [30] at 10 years. In the study of da luz Moreira conducted at the Cleveland Clinic on 88 operated pts (22 IRA v/s 66 IPAA) the cumulative probability of having an IRA running at 5, 10, 15 and 20 years amounted respectively to 81, 74, 56 and 46% [32]. In this study are recorded on average 6 bowel movements per day (range 2-11), night-time seepage in 5% of pts (1/22) and frequent urgency in 68% of pts (15/22) [32]. Other Aa at 13 years after surgery reported 4 bowel movements per day and none during the night, with continence in 100% of cases [27]. Some Aa did not show any significant difference in the number of evacuations at 1 year after surgery and 11 of 12 pts did not have continence problems [29]. In the majority of pts after surgery both the state of health (90% of cases) and quality of life (84% of cases) [28] improve. However, although the IRA is a safe procedure, in some cases, especially in young pts, it over time may experience failure and may need reoperation with proctectomy. After IRA failure rates of 10.1% and 24.1% at 5 and 10 years respectively 17 are reported. Other Aa report a 57% failure at 13 years after surgery [27]. In the Cleveland Clinic study the rectum was resected in 53% of pts (46/86) and the mean time between IRA and proctectomy was 10 years (range 1-33 years)[32].

IPAA group. In a meta-analysis of 43 trials, all before 2000, including 9317 pts, published by Hueting WE in 2005, the risk of failure of the pouch is 6.8% (95% Confidence Interval (CI): 5.4% -8.4%) and increased to 8.5% (95% CI: 5.4% -13.2%) in pts with follow-up greater than 5 years 34. The dehiscence of IPAA and pelvic sepsis were observed respectively in 9.5% (95% CI: 8.2% -10.9%) and in 5.5% (95% CI: 4, 3% -7.0%). A sexual dysfunction is present in 3.4% (95% CI: 2.7%-4.7%). In 18.8% (95% CI: 15.7%-22.4%) occurs pouchitis [34]. In a more recent meta-analysis of 53 trials, all subsequent to 2000, including 14966 pts, published by de Zeeuw in 2012, the results are significantly better [35]. The overall rate of pouch failure was 4.3% (95% CI: 3.5% -5.3%) and 4.7% (95% CI: 3.4% -6.4%) in pts with a follow-up of 5 years at least [35]. Also for other complications the results are better: fistula in 4.5% (95% CI: 3.5% -5.7%), pelvic sepsis in 7.5% (95% CI: 6.1% -9, 1%) and erectile dysfunction in 3.0% (95% CI: 1.7%

-5.2%) of the pts [35]. The only complication that is increased is pouchitis, with a rate of 26.8% (95% CI: 21.0% -33.5%) [35]. Functional results after IPAA are similar in studies published before and after 2000 [34,35]. The average frequency of bowel movements within 24 hours is equal to 5.9 (95% CI: 5.0 to 6.9), of which 1.5 (95% CI: 1.0 to 2.1) during the night. In 14.3% (7.3% - 25.9%) of the pts is mild fecal incontinence and 6.1% (2.9% -12.3%) severe fecal incontinence [35]. Most pts are satisfied after IPAA, with a good quality of life and a satisfying life of relationship [36-38].

Cancer Risk

IRA group. The cumulative probability of developing rectal dysplasia after IRA increases by 9% at 10 years to 25% at 20 years [33]. The probability of developing cancer of the rectum from dysplasia reaches 42% at 9 years after diagnosis [39-40]. The rates reported in the literature relating to the rectal cancer risk ranged from 0% to 18% depending on the duration of follow: 1.9% at 5.4 years [19], 3.1% at 8 years [26], 4.8% at 8 years and 13% at more than 25 years of follow-up [25]. They are also reported higher rates, with a cumulative risk of 6% at 20 years and 18% at 35 years [41]. In the Cleveland Clinic study of da Luz Moreira [33] the cumulative probability of developing a dysplasia is 7%, 9%, 20% and 25% and that of developing a cancer is 0%, 2%, 5% and 14 % in a follow-up of 5, 10, 15 and 20 years 33. Other studies reported no case of cancer at 13 [27] and 18 years of follow-up [30]. The cumulative probability of remaining free from cancer at 12 years is around 85.5% (95% CI: 57.7%-100%). In most pts undergoing IRA the diagnosis of rectal cancer occurs at an advanced stage (stage III-IV) [32,39,40]. The 62% of pts with rectal cancer undergoes death within three years of diagnosis [42]. In 8 of 10 pts with rectal cancer there were lymph node metastases or distant metastases [39,40]. The results are better in another trial: on 9 pts with rectal cancer only 2 die in a 22-year period [26]. The risk of cancer in pts operated on IRA for UC remains substantial and makes imperative a close surveillance with multiple rectal biopsies from multiple sites every 6-12 months [9,32,39,40,43-45].

IPPA group. The risk of cancer in pts who underwent IPAA has been matter of debate. In some studies with a long follow-up the risk of dysplasia and cancer in the transitional zone is minimal. Dysplasia was observed in 8/178 (4.4%) [46], 7/210 (3.3%)[47] 0/135 (0%) [48] after at least 10 years of follow-up. In most of these cases the dysplasia develops in the first 2 or 3 years and often disappears as a result of repeated biopsies. A study by Kariv R et al. in 2010 at the Cleveland Clinic, relating to 3203 pts who underwent IPAA from 1984 to 2009, provides useful information to assess the real risk of dysplasia and adenocarcinoma [49]. The cumulative incidence of cancer is equal to 0.9%, 1.3%, 1.9%, 4% and 5.1% respectively at 5, 10, 15, 20, and 25 years. Overall 23 pts (0.72%) developed dysplasia, while 11 (0.36%) developed a cancer in the pouch or in the anal transitional zone [49]. In this study also the risk factors for the occurrence of cancer were evaluated [49]. The only factor associated with an increased risk of cancer is the preoperative diagnosis of cancer [hazard ratio (HR) = 13:43, 95% CI 3.96 to 45.53, p <0.001] or dysplasia (HR = 3.62, 95% CI: 1.59 to 8.23, P = 0.002)[49]. Mucosectomy during anal anastomosis is not a protective factor against this risk and in some studies even the incidence of cancer would be higher after mucosectomia, with a rate of 1.3% (6/451) compared to 0.3% (9/2734) after mechanical anastomosis with circular stapler without mucosectomy [13,49]. The Aa in the Clevelan Clinic study concluded that the risk of malignancy in pts with UC underwent IPAA is modest and that this risk is primarily attributable to the preoperative presence of dysplasia or cancer [49]. In a review of 26 case reports of cancer, in pts operated on between 1984 and 2008 [50], in 14 cases (52%) cancer originates from residual mucosa of the rectum or anal transitional zone, while in 6 cases (23 %) originates from the mucosa of the ileal pouch. In 17 pts adenocarcinoma develops after excision of mucosa and in 8 pts after mechanical anastomosis without mucosectomy. Before surgery 19 of 26 pts had a malignancy (cancer 9 and 10 dysplasia). The time for the development of cancer in the pouch was shorter in pts with preoperative diagnosis of malignancy (average 3 years), compared to other pts (mean 6.5 years). This review is in line with the results of the study conducted at the Cleveland Clinic [49] and also leads to the conclusion that cases of cancer after IPAA are rare, cancer can develop either after mucosectomia that after mechanical anastomosis with circular stapler and there is a close relationship between the presence of cancer at the time of the intervention and the development of cancer after IPAA [50].

Discussion

Pts with UC in a percentage varying from 20 to 30% (and more) require sooner or later surgery [1-10,13,14]. The elective surgery of UC aims several objectives: to cure the disease or at least alleviate the symptoms as much as possible, freeing the pts from chronic drug therapy or at least avoid the negative effects of high and sustained dosages over time, eliminating or minimizing the risk of cancer, reduce morbidity and mortality of the disease, improve quality of life and re-enter the pts in a satisfactory social life. Unfortunately, still today, these objectives are not fully met in all pts, and therefore it is necessary a careful selection of candidate pts to surgical treatment [5,8,9.15,50]. The indications and timing of surgery are established in the context of a multidiscipli-

nary team, in which, in addition to the gastroenterologist and the surgeon, an important role must also have the same pt. Pts should be informed of all treatment options and surgical options: Restorative Proctocolectomy with Ileal Pouch-Anal Anastomosis (IPAA), Total Procto-Colectomy (TPC) with end-ileostomy (a Brooke ileostomy or a continent ileostomy-Kock pouch- in selected pts) and Subtotal Colectomy with Ileo-Rectal Anastomosis (IRA) [5,8-10,15,20,50,51]. The choice between these options is based upon pt's preference, experience of the surgeon, number of surgeries in a dedicated center (at least 10 cases per year as a minimum) and clinical criteria (dysplasia/malignancy, sphincter injury or dysfunction) [5,8,9,50]. The pt's general condition, nutritional status and immunosuppressive therapy, not only have an impact on surgical outcomes and complication rate, but also affect the choice of the type of intervention. The improvement of the nutritional status and the rationalization of the pre- and post-operative therapy can help to reduce the risks of surgery [9,10,52,53]. Weaning from steroid treatment before surgery is a determining factor [9,52,53]. Thiopurines do not increase the risks of surgery. The effect of biological therapies on surgical complications is still debated [54-56]. The time interval which usually passes between indication to surgery and effective implementation of the action can be used for the gradual reduction of steroid dose, but can not completely eliminate the effect of anti-TNF therapy on the immune response; the half-life of the antibody is variable [57] and the duration of its immunosuppressive effects remains undefined. In pts treated with anti-TNF, however, it is not necessary to postpone the surgery at all costs, but it is recommendable a surgical approach in several stages (proctocolectomy and ileostomy, and after IPAA) [9].

Although today IPAA is the ideal intervention for the treatment of UC [10,24,50,58], also a subtotal colectomy with IRA, in highly selected pts, may offer long-term satisfactory results [5,6,9,19,20,26,27,32,58-60]. IRA has been widely used in the years 50-60 [61,62] and as recently experienced a revival [19,20]. The IRA is an operation less invasive than IPAA, executable also in a single time; protective ileostomy is used in selected cases and at the discretion of the surgeon. It is a safe intervention and postoperative complications (intestinal obstruction, anastomotic leakage, abdominal abscesses) are rare [9,19,20,29-32]. Does not require dissection of the pelvic and presents no risk of injury of the nerves of the urogenital sphere [19,32]. The rate of urinary and sexual dysfunction is low. Fertility rates are close to those of the healthy population and higher when compared to those seen in pts undergoing IPAA. For this reason in the female subjects of childbearing age the IRA is an option to consider; in young patients, furthermore, with concerns regarding fecundability and sexual function, IRA might be offered as an interim procedure with the condition that an IPAA should be performed within 10 years of diagnosis to maintain a low cancer risk [19,20]. Furthermore avoids a definitive ileostomy [34,63-65]. The long-term results of the IRA are generally satisfactory [27-32,66]. Most of the pts stated that after the intervention improve both the health status and quality of life. IRA is indicated in selected pts where being documented only a mild proctitis, rectal compliance with proper and normal sphincter function; these are fundamental factors to achieve good long-term results. The absence of cancer or dysplasia is obviously fundamental requirement, although in UC pts with colorectal cancer and advanced metastatic disease, for the short life expectancy, you can perform an IRA with meaning merely palliative. The preservation of a long tract of rectosigmoid involved by the disease is the leading cause of failure of the IRA. Anastomosis to no more than 5 cm from the peritoneal reflection allows you to control the inflammation of the rectum during the first months and reduces the probability of failure of the IRA [67]. Although IRA is a safe procedure, with acceptable functional results and a good quality of life, in many cases, especially in young pts, it may not be the definitive treatment and may need a reoperation completion by removal of the rectum. Indications for proctectomy are recurrent proctitis refractory to medical therapy [9], dysplasia or cancer and supervening Crohn's disease diagnosis [9,68,69]. Surgical options for these pts include Brooke ileostomy or Kock continent ileostomy or in well selected pts IPAA [19,25-31]. In pts undergoing IRA savings rectum carries a significant risk of cancer growth [31]. The risk of cancer in pts operated on IRA for UC makes imperative a close surveillance with the multiple rectal mucosa biopsies taken from multiple sites every 6-12 months [5,31,39,40,44,50]. The diagnosis of only dysplasia should suggest a proctectomy completion. Pts who are not willing to undergo endoscopic surveillance should not be candidates for IRA. In pts with a history of pre-existing dysplasia or cancer the risk of developing cancer is higher and the colectomy with IRA should not be proposed [70]. Pts with cancer response in the colon removed will develop in the rectal stump residual cancer or severe dysplasia with a high frequency; in these pts it requires a close maddeningly control, much to even consider in these cases more convenient a proctectomy completion.

IPAA, intervention described for the first time by Parks in 1978 [22], has become in the following years the procedure of choice, both for good long-term functional results and the low risk of cancer [9,10,19,20,24,45,50,58,71-73]. However, we must not ignore the possible complications, such as anastomotic leak with pelvic sepsis and subsequent functional pouch failure, pouchitis, infertility in young women, lesions of the pelvic nerves and portal vein thrombosis [63-65,74-78].The mortality of IPAA is rare (0-1%) [79]. The early postoperative complications are pouchitis (26.8%), mild fecal incontinence (14.3%), small bowel obstruction (11,4%), anastomotic stricture (10.7%), pelvic sepsis (7.5%), severe fecal incontinence

(6,1%), perianal fistula (4,5%), pouch failure (4,3%), and sexual disfuncions (3.0%)[35]. Defunctioning ileostomy reduces the septic consequences of leakage, but also the rate of leakage itself [9,10]. In addition there have been reports of cancer insurgents not only in the anal transitional zone, but also in the same pouch[45,71]. IPAA is currently the procedure of choice for surgical treatment of UC[9], especially because it avoids a permanent ostomy, has a low risk of cancer and provides acceptable functional results with a satisfactory quality of life. IPAA represents a complex surgical technique with long and adequate learning curve, and it should be performed in high volumes centers (8.4 IPAA annually) [80] to maintain low rate of postoperative complications. Some studies highlight that surgical volumes have a beneficial effect on patient outcome [9,10,81]. IPAA, introduced over 30 years ago [22], has undergone several enhancements to improve the results, related to the packaging of the pouch, to the various anastomotic techniques, the type of ileostomy, the various methods of dissection and type of open or laparoscopic access including single port [9,10,50,58,82-95]. In addition, surgeons have also acquired greater experience and familiarity with this procedure; the tools have become increasingly sophisticated, robotics is increasingly taking the field, and also is a growing Trans Anal Minimal Invasive Surgery (TAMIS) for proctectomy with or without anastomosis [9]. Intersphincteric proctectomy is recommended as an alternative procedure to spare the pelvic floor and external anal sphincter to provide optimal pelvic floor closure and reduce the risk of perineal wound healing problems [9,10]. As it was obvious to expect, the results have improved over time. The literature includes a large amount of trials on IPAA results. Most studies, however, are retrospective and the data relating to individual institutions. For the reliable assessment of IPAA results you need to refer to meta-analysis; the ideal would be to have randomized studies. From the two meta-analyzes examined, meta-analysis of 43 trials all before 2000 [34] and more recent meta-analysis of 53 trials all subsequent to 2000, it seems that the rate of complications after IPAA has diminished over time, but the functional results after IPAA were similar in studies published before and after 2000 and appear to not have been positively affected by the increased experience gained over time [35] or by the development of new techniques, such as the type of anastomosis or laparoscopic approach [96,97]. The highest rates of incidence of pouchitis adversely affect functional outcomes and may even increase the risk of dysplasia in the pouch. However, most of the pts are satisfied with the results of IPAA and have a good quality of life and a good social life [36-38]. IPAA with the removal of the entire colon and rectum minimizes the possibility of colo-rectal cancer in this population of high risk pts [44]. When using a circular stapler to pack the anastomosis between pouch and anus remains in place scraps of the mucosa of the anal transitional zone. The risk of cancer in this area is a matter not yet fully clarified. In three studies with long-term follow-up the onset of dysplasia in the anal transitional zone is not frequent, with the incidence rates of 0% [47], 3.3% [46] and 4, 4% [45] after at least 10 years of follow-up; none of these studies reported cases of cancer. These data reveal that after IPAA cancer risk is minimal. In the study conducted at the Cleveland Clinic [48], in which were included 3203 pts who underwent IPAA from 1984 to 2009, the real risk of dysplasia and carcinoma of the pouch or the transition zone is 0.72% and 0.36%. The only factor associated with an increased risk of cancer is preoperative diagnosis of cancer or pre-existing dysplasia.
Mucosectomy does not appear to be protective factor against this risk. The Aa conclude that the risk of malignancy in pts with UC underwent IPAA is minimal and that this risk is primarily attributable to the preoperative presence of dysplasia or cancer [48]. The review of Branco [49] is in line with the results of the study conducted at the Cleveland Clinic from Kariv R [48]. In both studies, the Aa conclude that cases of cancer after IPAA are rare, cancer can develop either after mucosectomia that after mechanical anastomosis, there is a close relationship between tumor at surgery and subsequent development of cancer. Despite the risk of cancer is overall low, some Aa [99,100] recommend an endoscopic surveillance in selected pts. This could be particularly important in pts with dysplasia or cancer present at time of the primary surgery and in pts with active inflammation of the residual mucosa (cuffitis); also the presence of chronic pouchitis could be a valid indication for surveillance, since this is associated with an increased risk of dysplasia [14,44,101].

Conclusion

About a third of pts with UC require surgery. UC surgery should be undertaken by surgeons in a unit where the operations are performed regularly. The operation of choice in pts with ASC not responding to intensive medical therapy is a subtotal colectomy with end ileostomy and preservation of a long rectal stump. Pts requiring elective surgery for UC should be counselled regarding all surgical options. Surgery usually involves total proctocolectomy (TPC) with permanent end-ileostomy or restorative proctocolectomy with ileal-pouch-anal anastomosis (IPAA); the subtotal colectomy with ileo-rectal anastomosis (IRA), technically less demanding intervention, as recently experienced a revival and can provide satisfactory results in selected pts. The choice between these options is based upon pts preference and clinical criteria (dysplasia/malignancy, sphincter injury or dysfunction). In appropriately selected cases it is difficult to find a difference in terms of quality of life between the interventions. Today IPAA is the gold standard surgical treatment for pts with UC. The removal

of the pathological mucosa of the entire colon and a lower risk of cancer are the main advantages. There are no data to support an oncological superiority of manual anastomosis with mucosectomy, and cancer cases have been reported both in pts with mechanical anastomosis and in those with manual anastomosis. Also a mucosectomy not necessarily involves removal of the mucosa in its entirety. In addition there is evidence that the mechanical anastomosis is safe as the manual. However it seems reasonable when it is present a cancer or high-grade dysplasia of the lower rectum perform a mucosectomy and anastomosis to the dentate line, as an alternative to TPC. A further advantage of IPAA is to avoid a permanent ostomy. Temporary protective ileostomy is at the discretion of the surgeon, who must always follow the patient's desired. Complications, sexual dysfunction, reduced fertility are a present danger, not entirely negligible. The functional results are satisfactory. The results overall are better in high volume centers. IPAA is indicated especially when the rectum is involved in the disease and when it documented the coexistence of dysplasia or cancer in the colon and rectum. Obviously you need to document proper function of the anal sphincter. Otherwise it can be proposed an intervention of TPC with permanent ileostomy. IRA still has a role in selected pts. It remains the procedure of choice in pts at high risk of pouch failure. It is indicated in pts who refuses an ileostomy and in selected pts where they meet the following requirements: normal sphincter tone, absence of severe perineal disease, the rectum does not actively involved by the disease and expandable with the elasticity of the walls, the absence of dysplasia or cancer at surgery. In selected cases of high-grade dysplasia or cancer located in a segment of the proximal colon, in the presence of a mild proctitis, it can be considered a colectomy with IRA, as a result of careful discussion with the patient regarding the increased risk of neoplastic transformation. The risk of cancer is higher after IRA than after IPAA, with a cumulative risk at 20 years of 6-14% and 4.2% respectively. For this reason all pts undergoing IRA must be adequately informed about the risk, as well as recurrent proctitis, also of cancer and must fully understand the need for meticulous surveillance and accept at least annual endoscopy with rectal biopsies; if these conditions are not met, pts should not be subjected to IRA. Finally, even pts with widely metastatic colorectal cancer may benefit from an IRA as a palliative procedure for better functional results. IRA can also be proposed as a possible interim procedure in young women, because it is not need a pelvic dissection and the risk of infertility is minimal or nil when compared with the IPAA.

Riassunto

Si tratta di una review inerente gli articoli pubblicati nel corso degli ultimi 20 anni, con lo scopo di confrontare complicanze post-operatorie, risultati funzionali e il rischio di degenerazione cancerosa tra i pazienti in cui è stata eseguita l'anastomosi ileo-rettale e anastomosi tra pouch ileale e ano a completamento di resezione colica per Rettocolite Ulcerosa.
Per la review sono stati utilizzati i dati desunti dalla ricerca sui principali motori di ricerca della letteratura scientifica quali Pub Med, Medline, Scopus, Cochrane database.
Sulla base della nostra analisi, dopo aver valutato benefici e svantaggi di entrambe le tecniche chirurgiche, emerge come la anastomosi pouch-ileale sia la tecnica gold standard per la ricostruzione dopo trattamento resettivo chirurgico della Rettocolite Ulcerosa. Si analizzano peraltro le complicanze della procedura quali la deiscenza anastomotica con conseguente sepsi, il fallimento funzionale della pouch, la flogosi della tasca ("pouchite"), l'infertilità nelle donne giovani, la lesione nervosa pelvica e la trombosi venosa portale.
In considerazione di tali complicanze conserva una indicazione, in pazienti accuratamente selezionati, la soluzione di ripiego del confezionamento di una anastomosi ileorettale, a condizione di effettuare uno stretto follow-up post operatorio in considerazione dei rischi neoplastici.

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