

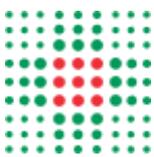
“Endoscopic update live in Ferrara”

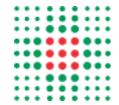
Colonscopia Virtuale: nuove applicazioni cliniche nella pratica quotidiana

Dr. Rizzati Roberto

SSD Radiologia Sud-Est

AUSL Ferrara





Indicazioni accettate



Indicazioni

Eur J Radiol. 2013 Aug;82(8):1192-200. doi: 10.1016/j.ejrad.2012.05.026. Epub 2012 Jun 27.

Current status on performance of CT colonography and clinical indications.

Laghi A, Rengo M, Graser A, Iafrate F.

Department of Radiological Sciences, Oncology and Pathology Sapienza - Università di Roma, Polo Pontino, I.C.O.T. Hospital, Via Franco Faggiana 43, 04100 Latina, Italy. andrea.laghi@uniroma1.it

Abstract

CT colonography (CTC) is a robust and reliable imaging test of the colon. Accuracy for the detection of colorectal cancer (CRC) is as high as conventional colonoscopy (CC). Identification of polyp is size dependent, with large lesions (≥ 10 mm) accurately detected and small lesions (6-9mm) identified with moderate to good sensitivity. Recent studies show good sensitivity for the identification of nonpolypoid (flat) lesions as well. Current CTC indications include the evaluation of patients who had undergone a previous incomplete CC or those who are unfit for CC (elderly and frail individuals, patients with underlying severe clinical conditions, or with contraindication to sedation). CTC can also be efficiently used in the assessment of diverticular disease (excluding patients with acute diverticulitis, where the exam should be postponed), before laparoscopic surgery for CRC (to have an accurate localization of the lesion), in the evaluation of colonic involvement in the case of deep pelvic endometriosis (replacing barium enema). CTC is also a safe procedure in patients with colostomy. For CRC screening, CTC should be considered an opportunistic screening test (not available for population, or mass screening) to be offered to asymptomatic average-risk individuals, of both genders, starting at age 50. The use in individuals with positive family history should be discussed with the patient first. Absolute contraindication is to propose CTC for surveillance of genetic syndromes and chronic inflammatory bowel diseases (in particular, ulcerative colitis). The use of CTC in the follow-up after surgery for CRC is achieving interesting evidences despite the fact that literature data are still relatively weak in terms of numerosity of the studied populations. In patients who underwent previous polypectomy CTC cannot be recommended as first test because debate is still open. It is desirable that in the future CTC would be the first-line and only diagnostic test for colonic diseases, leaving to CC only a therapeutic role.

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WJG 20th Anniversary Special Issues (13): Gastrointestinal endoscopy

Computed tomography colonography in 2014: An update on technique and indications

Andrea Laghi





Indicazioni accettate

- Colonscopia ottica incompleta

United European Gastroenterol J. 2015 Aug;3(4):358-63. doi: 10.1177/2050640615577881.

The safety of same-day CT colonography following incomplete colonoscopy with polypectomy.

Lara LF¹, Avalos D¹, Huynh H¹, Jimenez-Cantisano B¹, Padron M¹, Pimentel R¹, Erim T¹, Schneider A¹, Ukleja A¹, Parlade A¹, Castro F¹.

⊕ Author information

CONCLUSIONS: Radiologists' apprehension to perform a CTC the same day as an incomplete colonoscopy following polypectomies because of perceived risk of perforation may be unfounded. More data are needed to determine the safety of same-day CTC in patients with high-risk findings during colonoscopy such as a stricture, severe IBD, and after complex polypectomies.

- Controindicazioni alla colonoscopia

Main recommendations

1. ESGE/ESGAR recommend computed tomographic colonography (CTC) as the radiological examination of choice for the diagnosis of colorectal neoplasia. ESGE/ESGAR do not recommend barium enema in this setting (strong recommendation, high quality evidence).
2. ESGE/ESGAR recommend CTC, preferably the same or next day, if colonoscopy is incomplete. Delay of CTC should be considered following endoscopic resection. In the case of obstructing colorectal cancer, preoperative contrast-enhanced CTC may also allow location or staging of malignant lesions (strong recommendation, moderate quality evidence).
3. When endoscopy is contraindicated or not possible, ESGE/ESGAR recommend CTC as an acceptable and equally sensitive alternative for patients with symptoms suggestive of colorectal cancer (strong recommendation, high quality evidence).

ations

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When endoscopy is contraindicated or not possible, ESGE/ESGAR recommend CTC as an acceptable and equally sensitive alternative for patients with symptoms suggestive of colorectal cancer (strong recommendation, high quality evidence).

ESGE/ESGAR recommend referral for endoscopic surveillance of patients with at least one polyp detected at CTC. CTC surveillance may be considered if patients do not undergo colonoscopy (strong recommendation, moderate quality evidence).

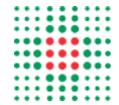
ESGE/ESGAR do not recommend CTC as a primary method for colorectal cancer screening or in individuals with a family history of colorectal cancer. CTC may be proposed as a CRC screening alternative on an individual basis providing the screening individual is informed about test characteristics, benefits, and risks (strong recommendation, moderate quality evidence).



“Frail and Elderly”

UK: Tolan D, AJR 2007

- | 400 patients \geq 70 years.**
- | GI symptoms.**
- | Full bowel prep.**
- | IV contrast.**

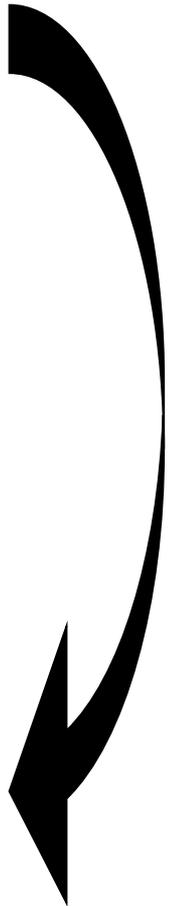


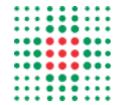
“Frail and Elderly”

96 pat	110 new important findings
49 pat	23 extracolonic malignancies
	29 colorectal cancers
14 pat	16 large polyps

- | Sens per polyp: 89 %
- | Sens per cancer: 97 %

Contrast enhanced CT colonography





“Nuove” applicazioni cliniche

- **Malattia diverticolare in pz. Asintomatico**
- **Follow up diverticolite acuta**
- **Planning preoperatorio in chirurgia**
- **Valutazione stomia provvisoria**
- **Endometriosi**
- **Valutazione stent**



Current status on performance of CT colonography and clinical indications.

Laghi A, Rengo M, Graser A, lafrate F.

- Indicazioni accettate
- Altre indicazioni
- Under Debate....
- Controindicazioni relative
- Controindicazioni assolute

Current indications

Incomplete CC

Elderly/frail patients unfit for CC
Asymptomatic diverticular disease
Tumor mapping before laparoscopic surgery
Stoma evaluation

Deep pelvic endometriosis

Indications under debate

Screening

Surveillance after surgery for CRC cancer

Relative contraindications

Surveillance after polypectomy

Positive FOBT

Inflammatory bowel diseases (IBDs)

Absolute contraindications

Diverticulitis/acute phase of IBDs

Surveillance of IBD (UC and Crohn)

Surveillance of HNPCC and APC-associated polyposis conditions (FAP, Gardner syndrome, Turcot syndrome, attenuated FAP)

The most important and accepted indication for CTC; full replacement of BE; recommended by AGA since 2006

Avoid excessive risk at CC; achievable with reduced preparation since target lesions are cancers and not polyps; improved patient comfort, also compared with BE

Assess extension and severity of diverticulosis; colon mapping similar to BE; improved patient comfort compared with BE

Localization of tumor (and synchronous lesions) and/or polypectomy site at lap-surgery is challenging; CTC is more accurate than CC in tumor location

Good alternative in f/u after colectomy. Well accepted by Patients. Results similar to CC

Colon mapping (replacing BE). Complementary role together with TRUS and MRI

Current role: integration into FOBT programs, replacing BE after incomplete CC

Potential role: first-line imaging modality for CRC screening. No general consensus. Some issues still open: radiation exposure; cost-effectiveness; significance of diminutive (<6 mm) lesions; management of small polyps (6–9 mm); impact of nonpolypoid ("flat") lesions; economical impact of extra-colonic findings
CRC recurrence rate: up to 30% both colonic and extra-colonic surveillance (>50% extracolonic metastases) with a single examination. Many local recurrences lack an intraluminal component. Still missing robust data in the literature

Of interest because of variable patients compliance to follow-up CC. Need for risk stratification of patients before routine implementation, in order to keep the approach cost-effective. Not recommended because of the lack of data in the literature

Not recommended because CTC is not cost-effective as a triage technique due to the high prevalence of advanced neoplasia and the relatively low specificity and negative predictive value

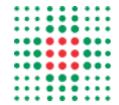
Not an alternative to CC for diagnosis. Role limited to patients with incomplete/inconclusive CC. Alternative to CC in noncompliant postsurgical patients with rigid stricture

Because of the high risk of bowel perforation, CTC is contraindicated in acute colonic diverticulitis and in patients with IBDs presenting with acute symptoms. The most appropriate examination is contrast-enhanced MDCT

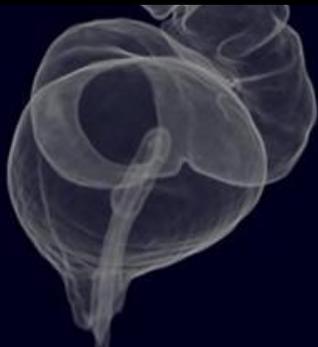
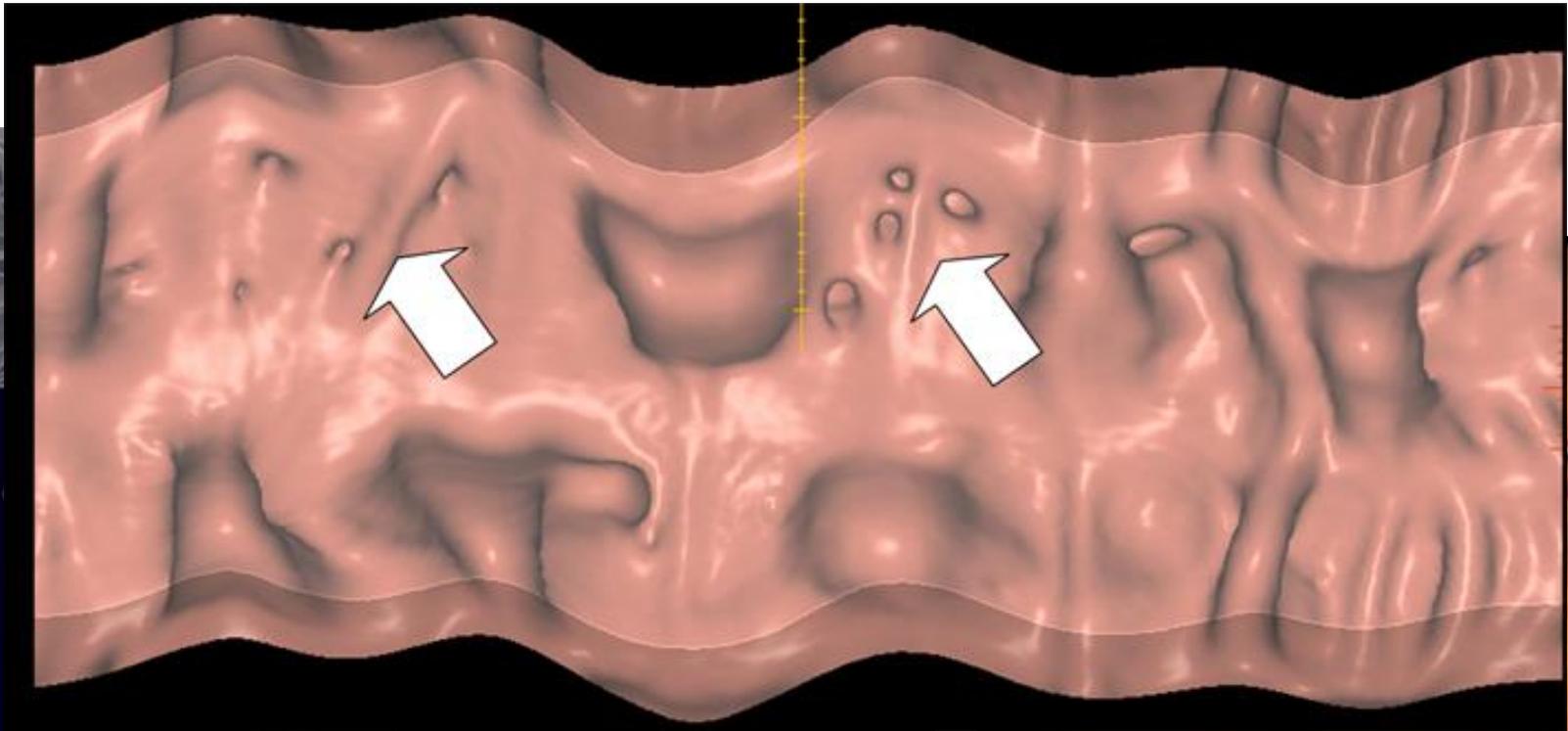
Patients with long standing IBD are at high risk of CRC. CC surveillance is recommended

Individuals with HNPCC have 80% lifetime risk for CRC and high risk for other cancers. In individuals affected by FAP CRC is inevitable, with a mean age of diagnosis being 39 years (range of 34–43 years). CC surveillance is mandatory



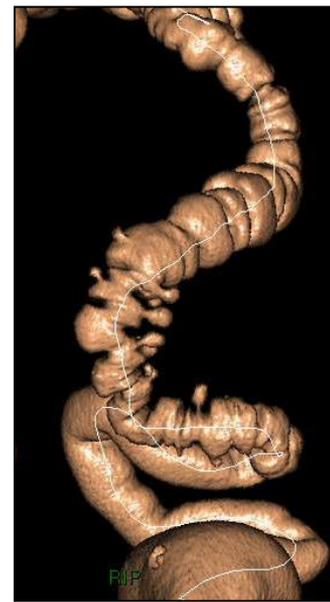
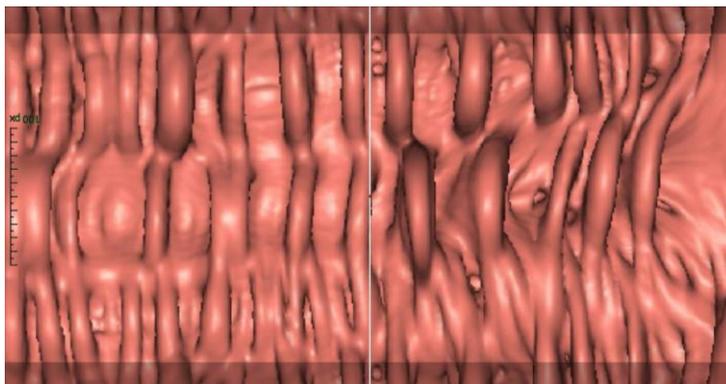


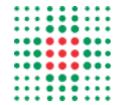
Malattia Diverticolare



Vantaggi Colonscopia Virtuale vs. TC mdc/ CO

1. Estensione diverticolosi e valutazione anatomica colon
2. Completamento diagnostico in caso di CO incompleta
3. Morfologia e grado di ispessimento parietale
4. Interessamento extracolico (versamento, perforazione coperta, ecc)
5. D.D. con CRC ????
6. Follow up diverticolite (dose minore rispetto a TC)
7. Planning pre-operatorio



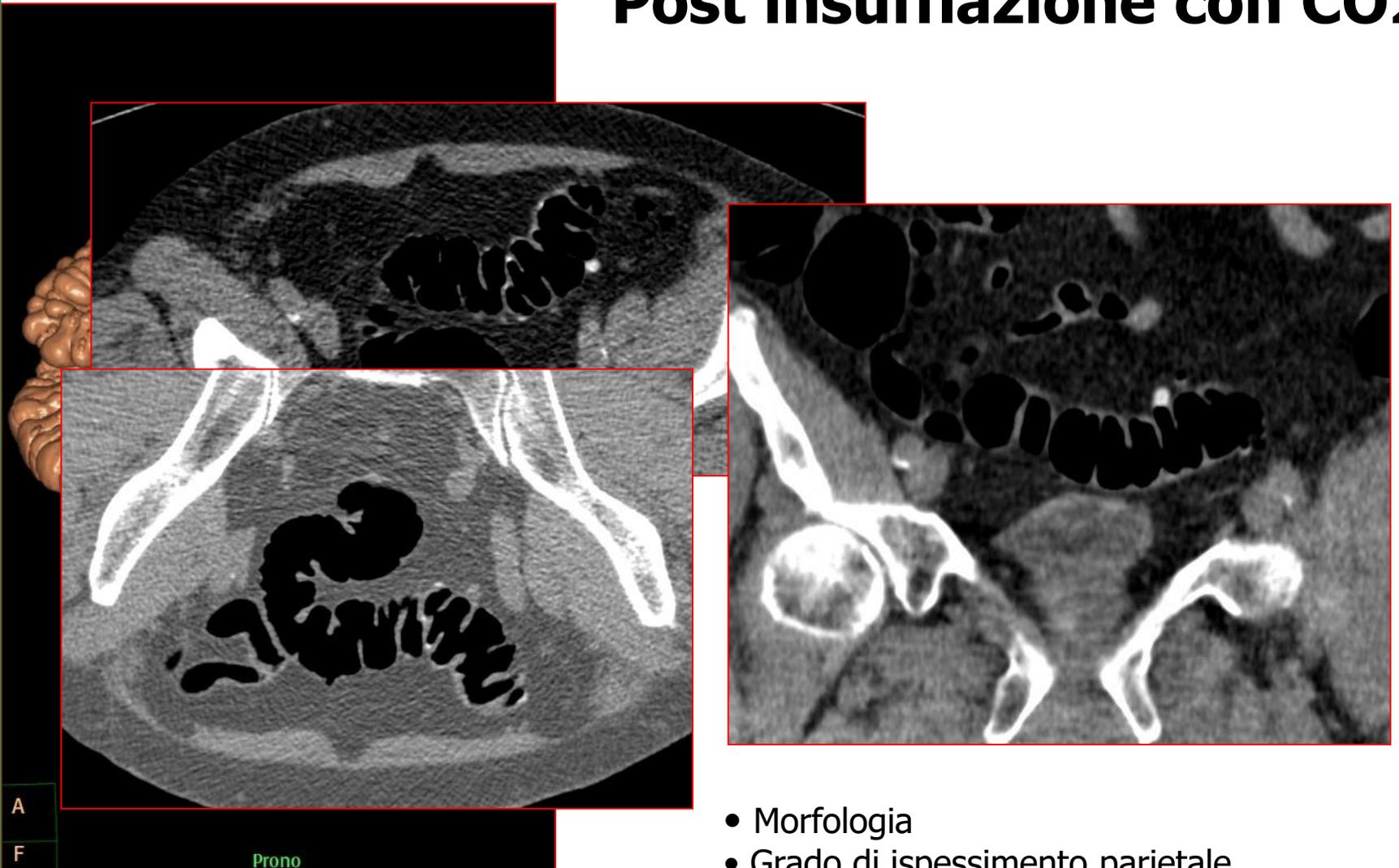


COLON TC per studio malattia diverticolare

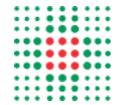
Pre insufflazione



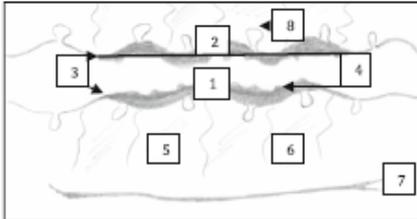
Post insufflazione con CO2



- Morfologia
- Grado di ispessimento parietale
- Presenza e numero di formazioni diverticolari
- Rapporto con organi vicini

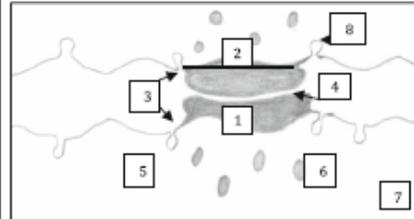


Findings suggestive of chronic diverticulitis.



1. Wall thickening (milder).
2. Long segment (≥ 10 cm).
3. Tapered margins.
4. Distorted but preserved folds.
5. Pericolonic infiltration.
6. No pericolonic adenopathies.
7. Thick fascia sign .
8. Diverticula adjacent to and in the affected segment.

Findings suggestive of malignant tumor.



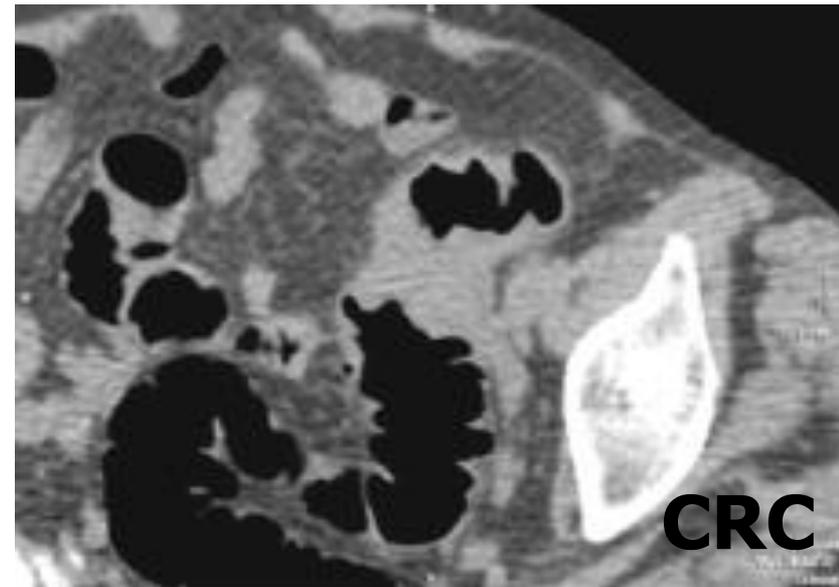
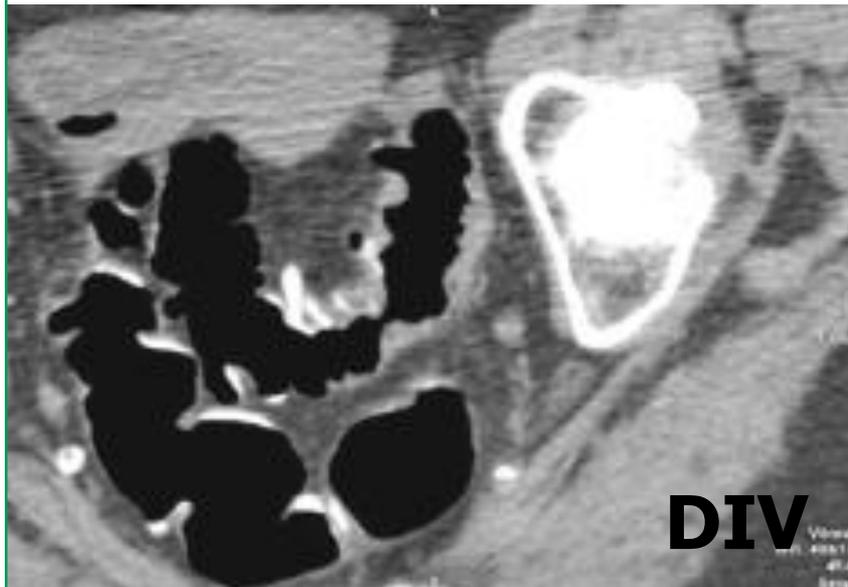
1. Wall thickening ++ (≥ 2 cm).
2. Short segment .
3. Shoulder forming.
4. Distorted folds.
5. No pericolonic infiltration.
6. Pericolonic adenopathies.
7. No thick fascia sign .
8. Diverticula adjacent to but NOT IN the affected segment.

Chronic diverticulitis vs. colorectal cancer: findings on CT colonography

Stefaan Gryspeerdt, Philippe Lefere

Virtual Colonoscopy Teaching Centre, Akkerstraat 32 c, 8830 Hooglede, Belgium

DD diverticolite e CRC?



PubMed

U.S. National Library of Medicine
National Institutes of Health



Display Settings: Abstract

[Eur J Radiol](#). 2011 Feb 25. [Epub ahead of print]

Technical quality of CT colonography in relation with diverticular disease.

[Flor N](#), [Rigamonti P](#), [Di Leo G](#), [Ceretti AP](#), [Opocher E](#), [Sardanelli F](#), [Cornalba GP](#).

Dipartimento di Scienze Medico-Chirurgiche, Università degli Studi di Milano, Milan, Italy; Unità Operativa di Radiologia Diagnostica e Interventistica, Azienda Ospedaliera San Paolo, Milan, Italy.

Abstract

OBJECTIVE: The aim of the study is to explore how the technical quality of the examination was affected by diverticular disease.

MATERIALS AND METHODS: We retrospectively evaluated a consecutive series of 78 subjects who underwent CTC for screening (n=58) or staging (n=20) colorectal cancer, 38 of them (49%) after an incomplete optical colonoscopy. Patients were administered a mild laxative and a iodinated contrast material for fecal tagging. We scored both the bowel preparation and the overall colon distension as poor, good, or optimal and measured the mean sigmoid colon diameter. We counted the number of diverticula and classified patients as having or not a severe diverticular disease (SDD). The number of the prompts of computer aided diagnosis (CAD) per patient was also considered. Mann-Whitney U and χ^2 tests were performed.

RESULTS: No CTC complications occurred. The bowel cleansing was poor in 8 (10%) patients, good in 29 (37%) and optimal in 41 (53%); colon distension was poor in 7 (9%) patients, good in 38 (49%), and optimal in 33 (42%). Fifty-four (69%) showed diverticula and 30 (38%) had an SDD. Bowel cleansing and distension were not significantly impaired by neither diverticula ($p>0.590$) nor the SDD ($p>0.110$). Mean sigmoid colon diameter was reduced in presence of diverticula (28mm versus 23mm, $p=0.009$) or SDD (26mm versus 22mm, $p=0.016$). The mean number of CAD prompts per patient was not significantly increased by the presence of SDD ($p=0.829$).

CONCLUSIONS: Bowel cleansing and distension at CTC were not influenced by the presence of diverticular disease.

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NON in URGENZA

CONCLUSIONS: Bowel cleansing and distension at CTC were not influenced by the presence of diverticular disease.

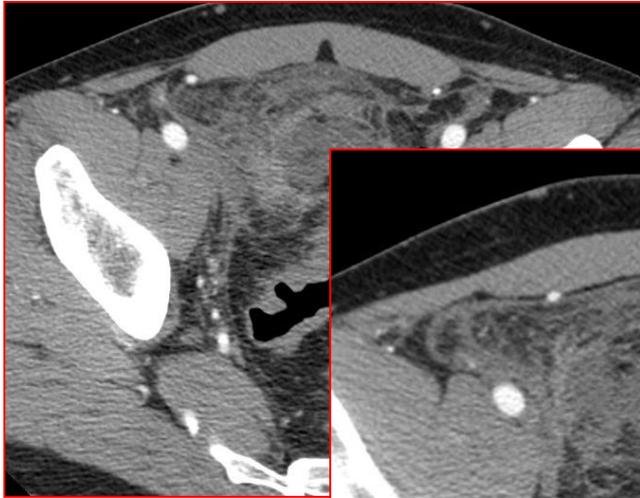
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Flor N et al. Eur J Radiol 2011

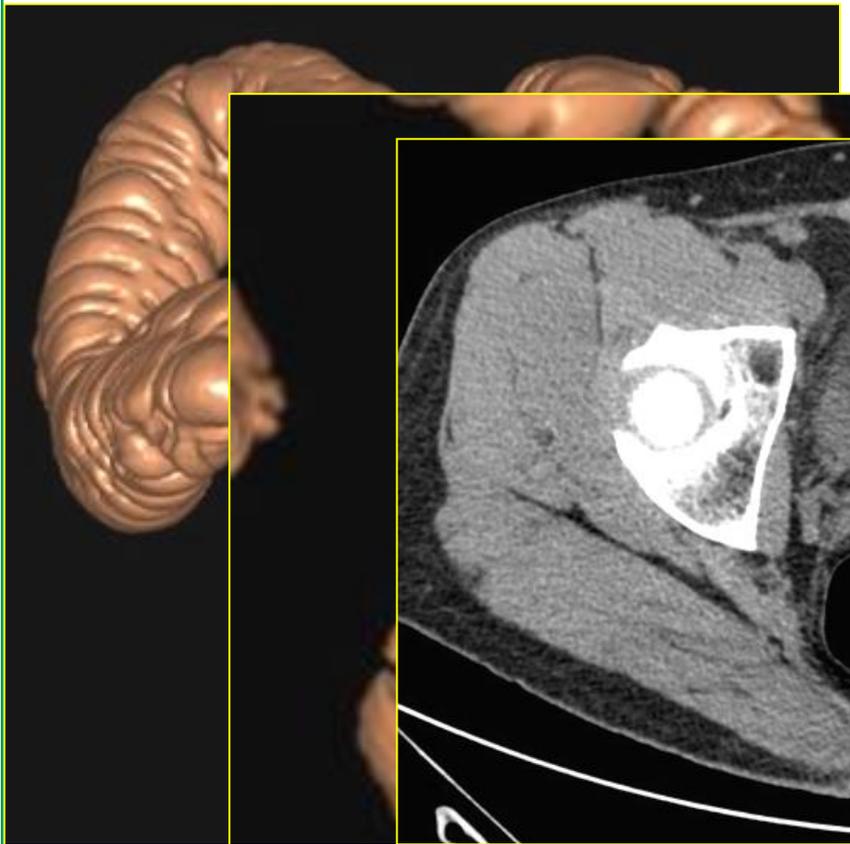
CV ALMENO 4-6 SETTIMANE DOPO L' EVENTO ACUTO



36 yo male. with acute hypogastric pain 3 months before.
OC findings: possible covered perforation. *CT IN E.R.*



**36 yo male. with acute hypogastric pain 3 months before.
OC findings: possible covered perforation. **CT IN E.R.****



Chirurgia laparoscopica colon



Eur J Surg Oncol. 2017 Nov;43(11):2105-2111. doi: 10.1016/j.ejso.2017.09.016. Epub 2017 Sep 20.

Preoperative segmental localization of colorectal carcinoma: CT colonography vs. optical colonoscopy.

Offermans T¹, Vogelaar FJ², Aquarius M³, Janssen-Heijnen MLG⁴, Simons PCG⁵.

CONCLUSION: CTC has a lower localization error rate than OC, which is most relevant for tumors located in the descending colon. If there is a doubtful localization on OC, particularly in the left-sided colon, an additional CTC should be performed to choose the best surgical treatment.

Value of CT colonography as preliminary study prior to laparoscopic surgery in patients with colon malignancies and complicated diverticular disease

R. Rizzati¹, S. Tartari¹, C. Cavallini¹, M. Princivalle¹, R. Righi¹, G. Anania², G. Benea¹; ¹Lagosanto Ferrara/IT, ²Ferrara/IT

ECR
2012



Vienna
March 1-5



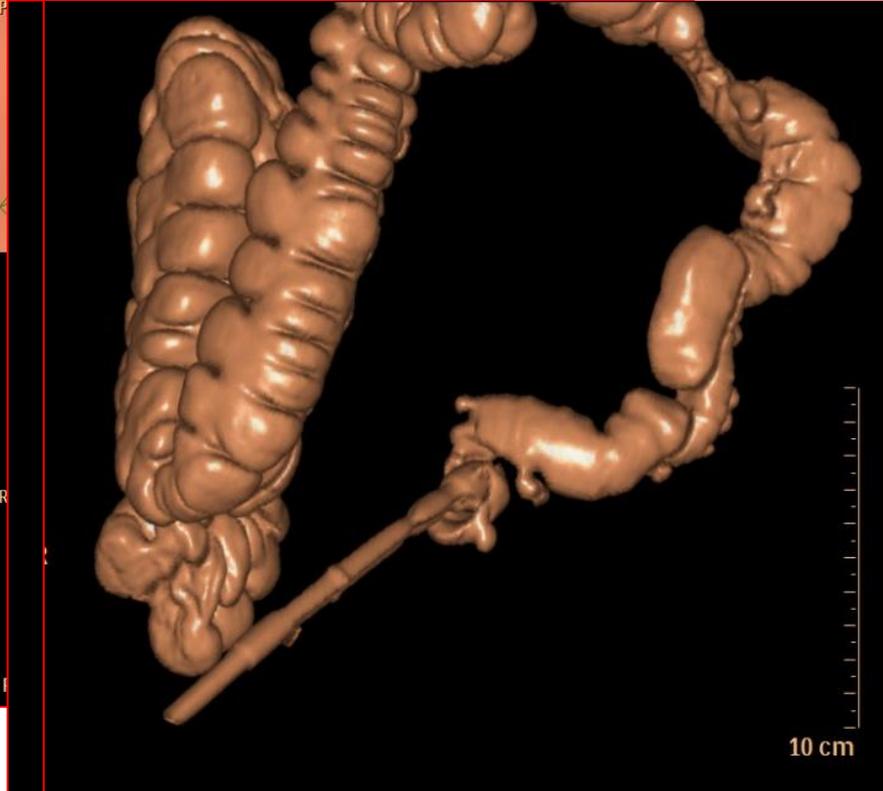
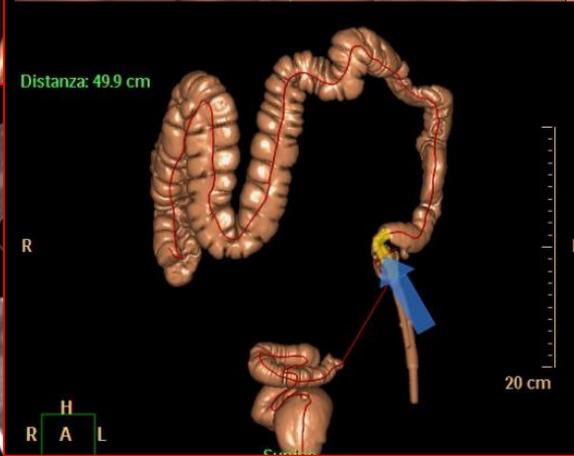
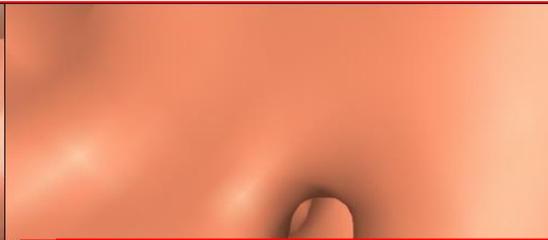
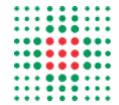
Valutazione stomia provvisoria

Studio preliminare ricanalizzazione Hartmann



- 1. Valutazione anatomia per corretta pianificazione preoperatoria*
- 2. Neoplasie: eventuali recidive sui monconi, linfonodi ecc.*
- 3. Diverticoliti: estensione ed eventuali attività di malattia nei segmenti da anastomizzare e nei restanti tratti.*
- 4. Persistenza o comparsa di complicanze (versamento, ascessi, fistole, aderenze) che potrebbero condizionare negativamente l'intervento*







ENDOMETRIOSI

- INTERESSAMENTO DELLE PARETI INTESTINALI (5-27%)
- RETTO-SIGMA
- PIANIFICAZIONE PREOPERATORIA (PRESENZA, SEDE, ESTENSIONE)
- VANTAGGI CTC vs CLISMA DC

ENDOMETRIOSI

Gynécologie Obstétrique & Fertilité xxx (2015) xxx–xxx



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Original article

Computed tomography-based virtual colonoscopy in the assessment of bowel endometriosis: The surgeon's point of view

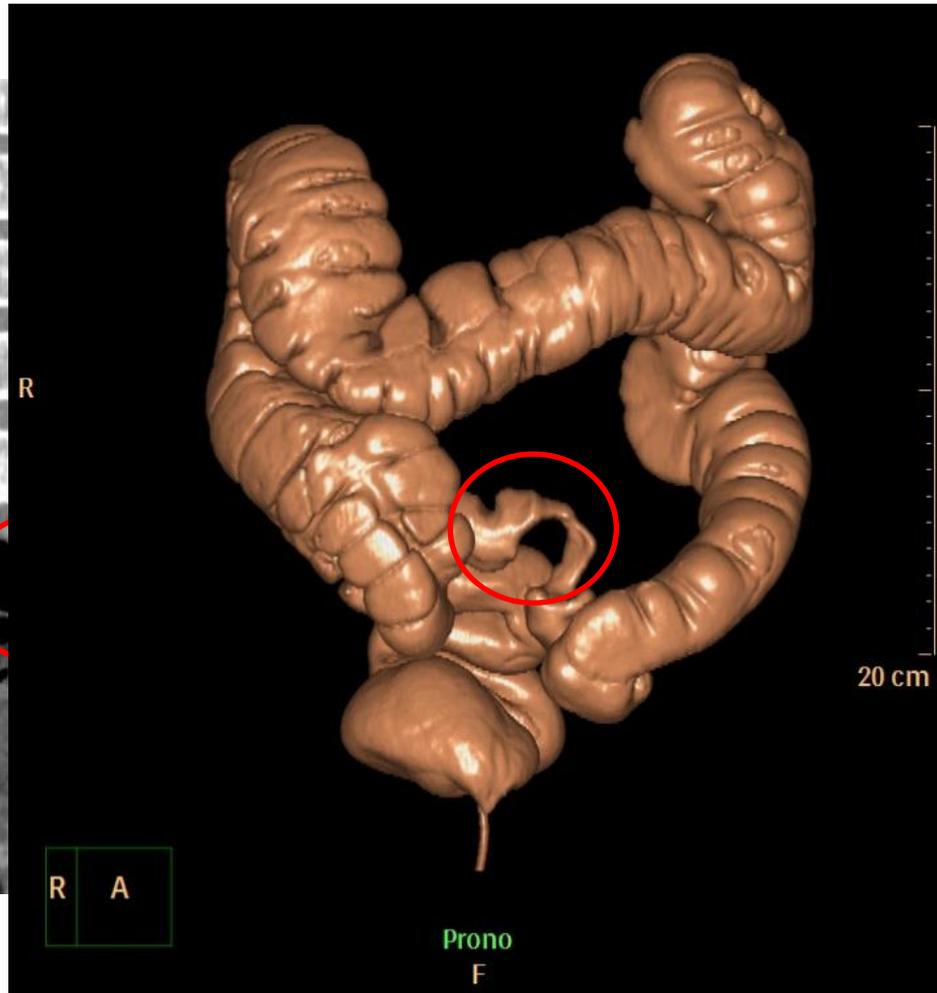
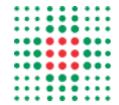
Coloscanner avec coloscopie virtuelle dans le bilan préopératoire des endométrioses digestives : le point de vue du chirurgien

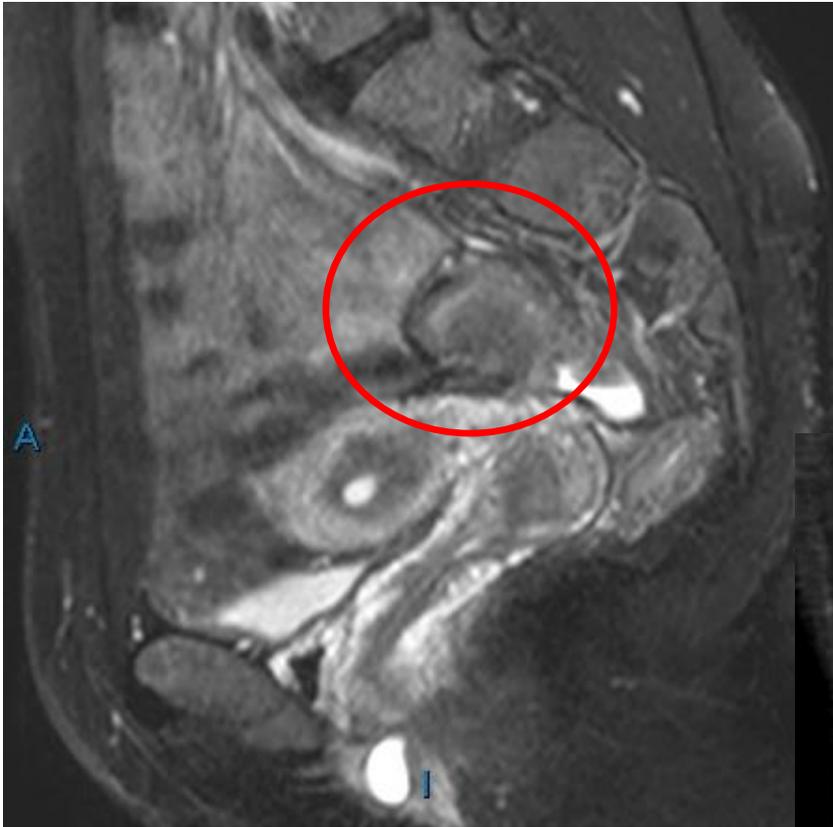
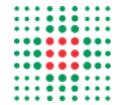
H. Roman^{a,*}, J. Carilho^a, C. Da Costa^c, C. De Vecchi^c, O. Suaud^d, M. Monroc^e, P. Hochain^e, M. Vassilieff^a, C. Savoye-Collet^c, M. Saint-Ghislain^a

Conclusions. – CTC provides accurate data on the length and height of colorectal involvement by DIE, stenosis of digestive lumen and associated lesions of digestive tract, which impact on the choice of surgical procedure.

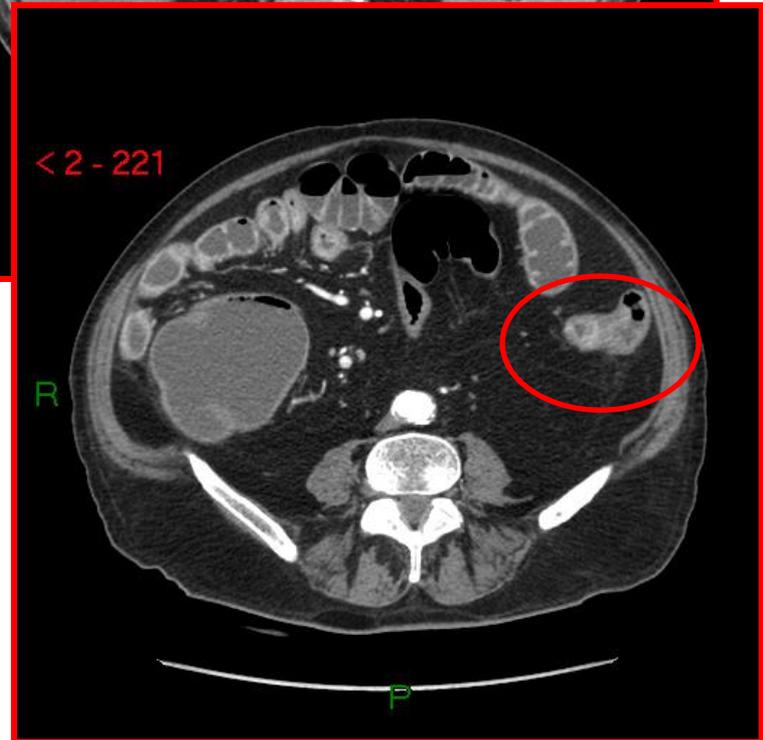
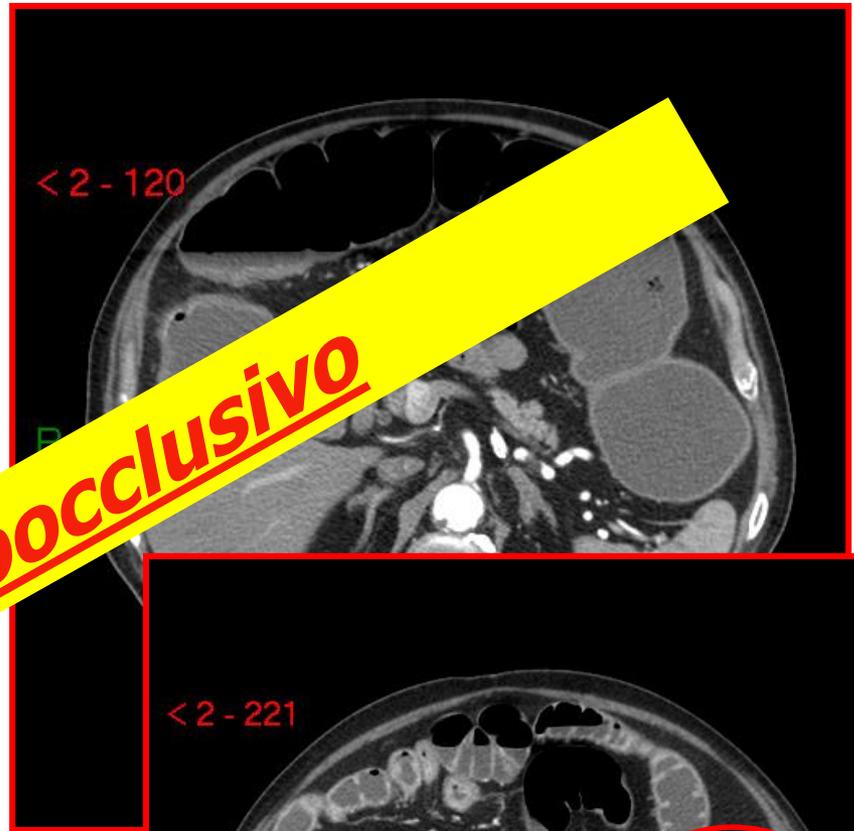
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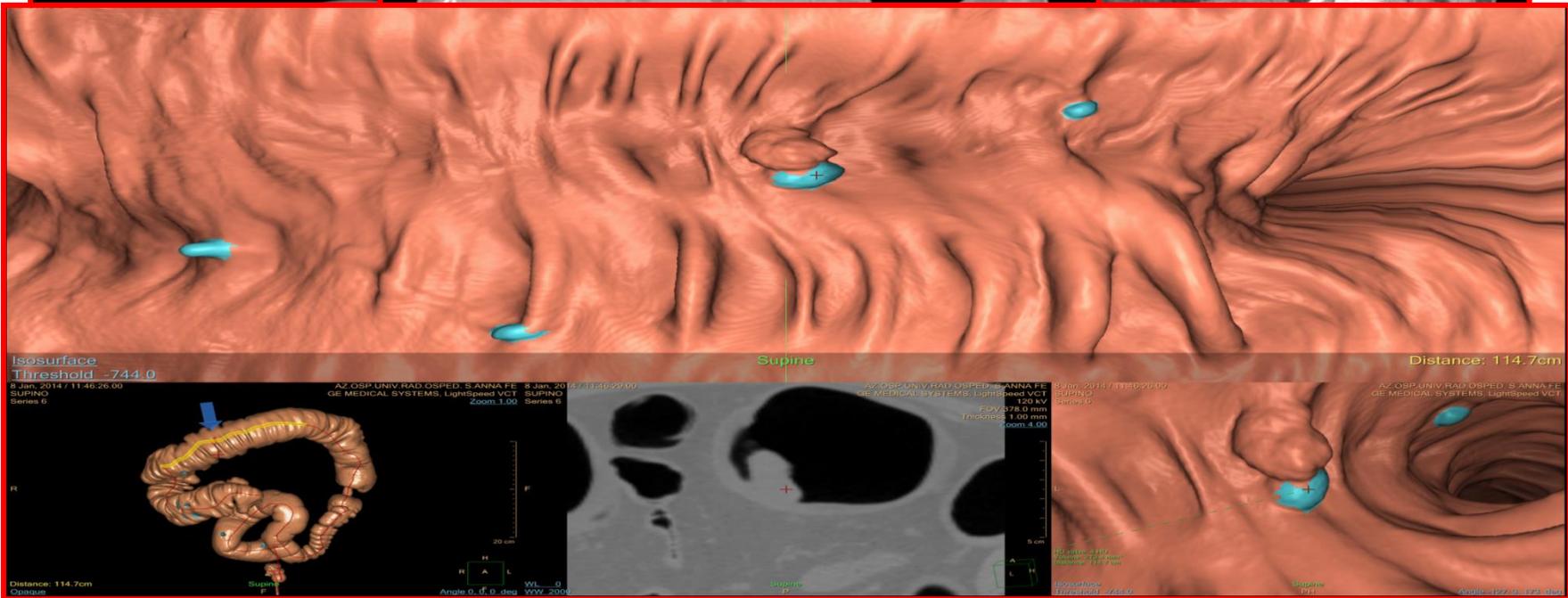
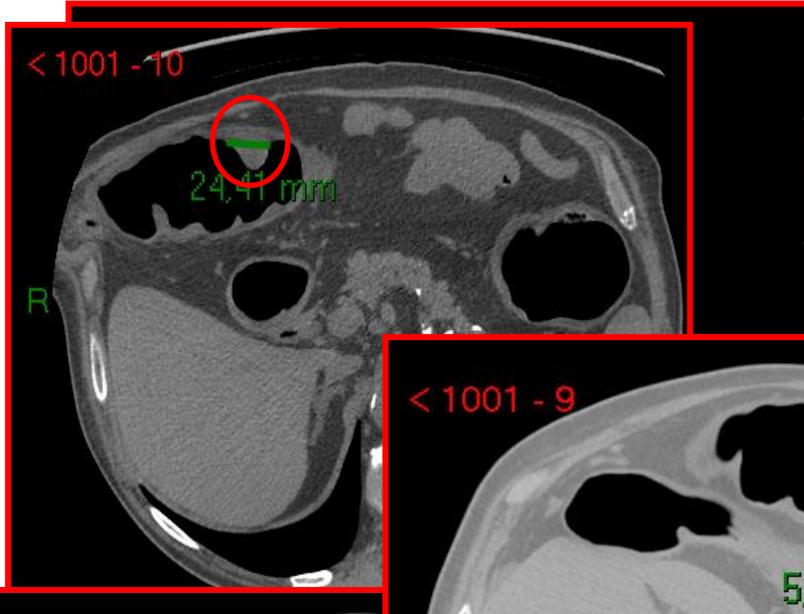


Valutazione stent



Stato subocclusivo

Valutazione stent



COLECTOMIA TOTALE

Materiale Inviato

1. colon destro+trasverso+flessura sinistra+prima porzione discendente

2. linfonodo arteria ileo-colica

3. anello distale

Diagnosi Istologica

1-2) Adenocarcinoma colico moderatamente differenziato (basso grado) infiltrante la parete e il tessuto adiposo perviscerale, con carcinomi delle vene extramurali. Metastasi a 1 dei 31 linfonodi repertati. Assenza di metastasi al linfonodo inviato a parte (2). Margini di resezione e omento esenti da lesioni neoplastiche. pT3 - N1a (stadio IIIB).

Coesistono 13 adenomi tubulari, uno dei quali con displasia grave.

3) Parete colica esente da infiltrazione carcinomatosa.

Letto/Controllato: EKA GL

Descrizione Macroscopica

1. Pezzo operatorio costituito dalla porzione di colon ileo-colica dopo resezione colica il viscere presenta una consistenza sostenuta di circa 15 mm 5 a cm 3 x 2,5, la maggior parte appare esente da lesioni. Dal

2. Linfonodo di cm 1,5 x 0,5.

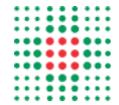
3. Anello di parete colica di cm

Visto: EMO/emo,eka,gl

1) CCR

2) 13 adenomi tubulari

15 circa dal margine di resezione, di forma rotondeggiante di dimensioni variabili da 5 a 15 mm. L'ileo cieco è esente da lesioni.



E lo screening?



Last updates (2017)

[Radiol Clin North Am.](#) 2017 Nov;55(6):1183-1196. doi: 10.1016/j.rcl.2017.06.009.

Imaging and Screening for Colorectal Cancer with CT Colonography

Pickhardt PJ¹.

Author information

Abstract

Despite being readily preventable, colorectal cancer is the second leading cause of cancer death in the United States. The burden of colorectal cancer could be reversed if screening tests that effectively detect and remove precancerous polyps were widely used. CT colonography (CTC) reflects an ideal balance of sensitivity, specificity, and safety when technical and interpretive approaches used to optimize performance are appropriately addressed. Unfortunately, the current state of CTC in clinical practice is far from ideal. This article provides an updated blueprint for setting up a successful CTC screening program.

**Apparecchi performanti (<dose)
Preparazioni ottimizzate
Radiologi esperti
Metodica allo "stato dell'arte"**

Pronta per lo screening



...ad oggi

• **SIGGAR TRIAL (UK)**

Health Technol Assess. 2015 Jul;19(54):1-134. doi: 10.3310/hta19540.

Computed
cancer in
trials).

Halligan S¹, D

Lancet. 2013 Ap

Computed
suggestive

Atkin W, Dadsv
S; SIGGAR inv

• CV >> CDC

• CV > CC

• **MA**

Eur Radiol. 20

Sensitivity and specificity of CT colonography for the detection of colonic neoplasia after positive faecal occult blood testing: systematic review and meta-analysis.

Plumb AA¹, Halligan S, Pendsé DA, Taylor SA, Mallett S.

ACCURATA
PER IL
CANCRO

S. Halligan et al.
Lancet 2013

Atkin et al
Lancet 2013

Plumb et al,
Eur.Radiol 2014

Analysis of colorectal
cancer (in SIGGAR

symptoms

on D, Wardle J, Halligan



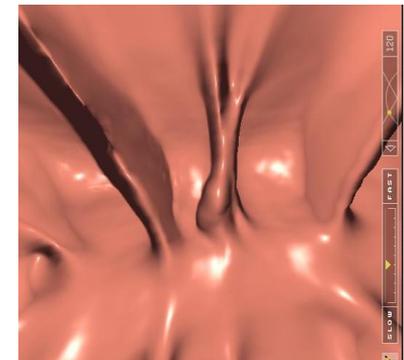
Reporting: Adenoma Piatto - CTC

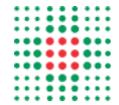
- Analisi retrospettiva dei dati ACRIN (≈ 2600 soggetti)
- Definizione di “lesione piatta”: $H/W \leq 50\%$; $H \leq 3\text{mm}$

RISULTATI

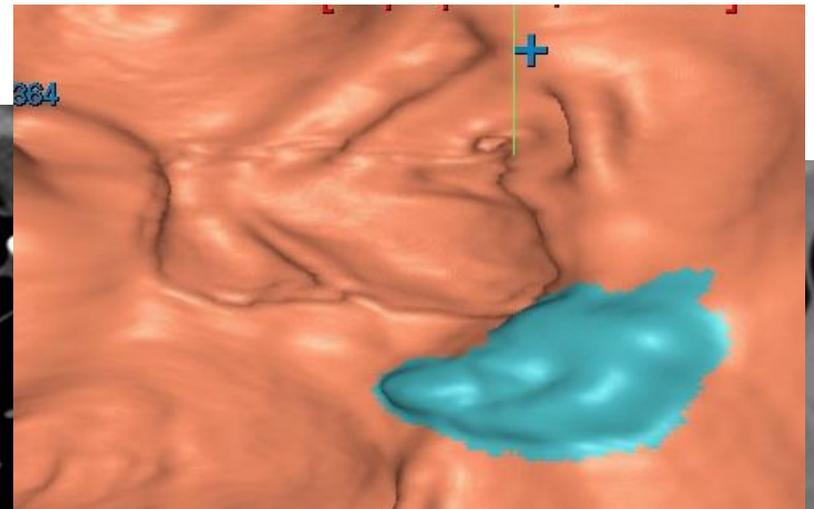
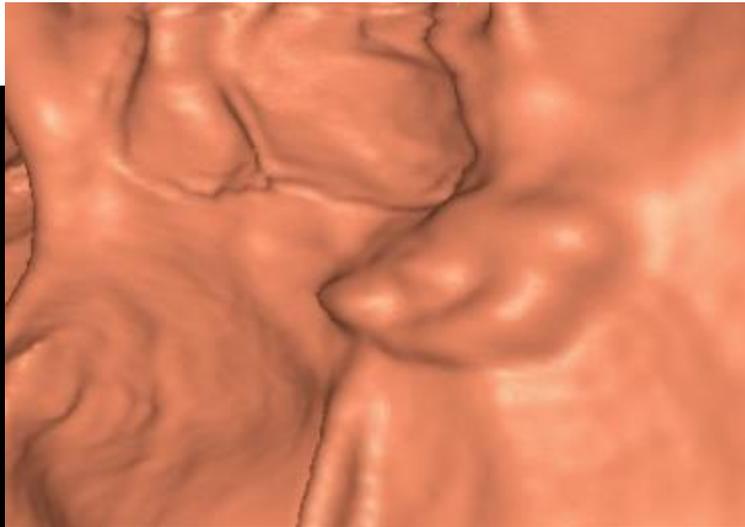
- 374 adenomi/adenoca $\geq 5\text{mm}$
- 19 (0.75%) piatti; dimensioni medie = 9mm
- 8/19 (42%) adenomi avanzati
- Sensibilità, 68% ($>10\text{mm}$, 67%)

analisi retrospettiva, 89%





Polipo piatto



Materiale Inviato

CIECO

Diagnosi Istologica

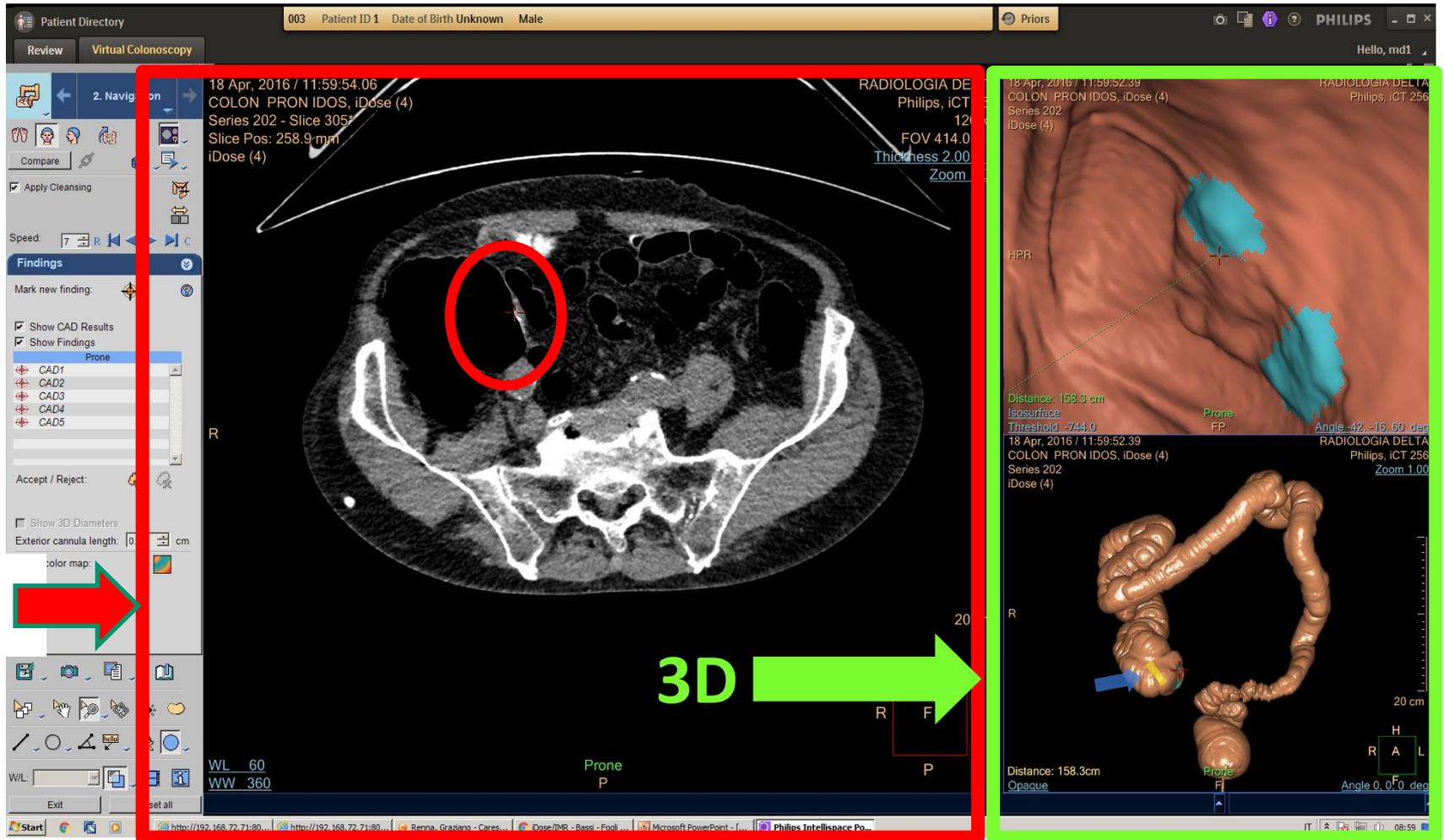
Frammenti superficiali di adenocarcinoma e di neoplasia villosa; infiltrazione indeterminata

Letto/Controllato: GQ EG



Protocollo bassa dose

120 kV 50 mAs



2D

3D



I° Level: Sangue occulto

II° Level: CO

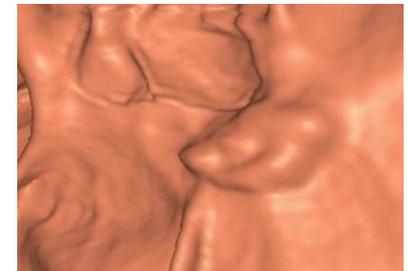
→ In Ferrara 2014 adesione II livello: **74%**

Scopo: aumentare adesione al II livello



Screening Ferrara (Dal Dic 2015)

- Primo colloquio infermieristico (SOF+)
- Selezione dei pazienti (rifiuto o controindicazioni alla CO)
- Colloquio medico-radiologico (1/mese)
- Giorni dedicati sul Dipartimento
- Radiologi esperti (>300 CTC/anno)
- "Doppio cieco"

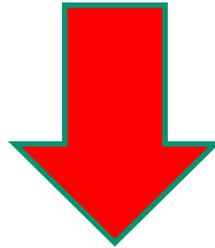


CTC Screening – Ferrara

Dicembre 2015 – Marzo 2019.

203 pz con sangue occulto+ che rifiutavano o controindicavano CO.

Colloquio medico-radiologico:



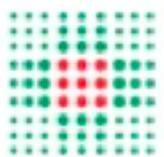
175 sottoposti a CV (6 rifiuti, 22 reindirizzati a CO)

54 positivi

52 lesioni

(3 CRC and 1 displasia alto grado)





Adesione II livello

	COLONSCOPIA OTTICA	COLONSCOPIA OTTICA ALTRA SEDE	COLON TC SCREENING	ADESIONE II LVL
2014	67,3	6,6	0,1	74,0
2015	72,7	7,7	4,6	85,0
2016	73,4 	5,3	4,9	83,6



In total:

2014 ►► 2015 **+11% ADHESION**

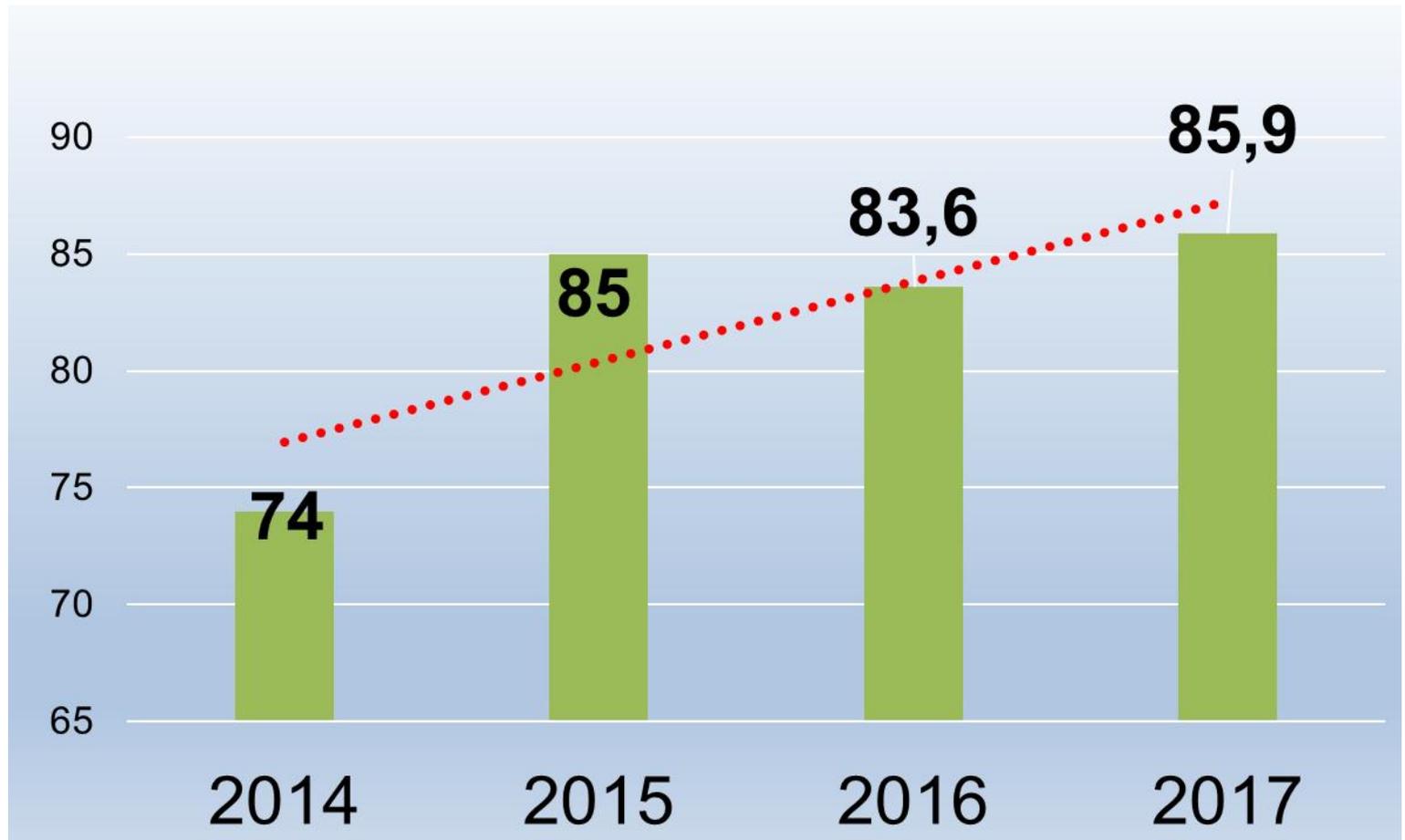
 2016 ►► **+0,7% OC**

Dati Incontro Regionale Screening CRC

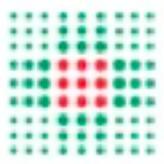
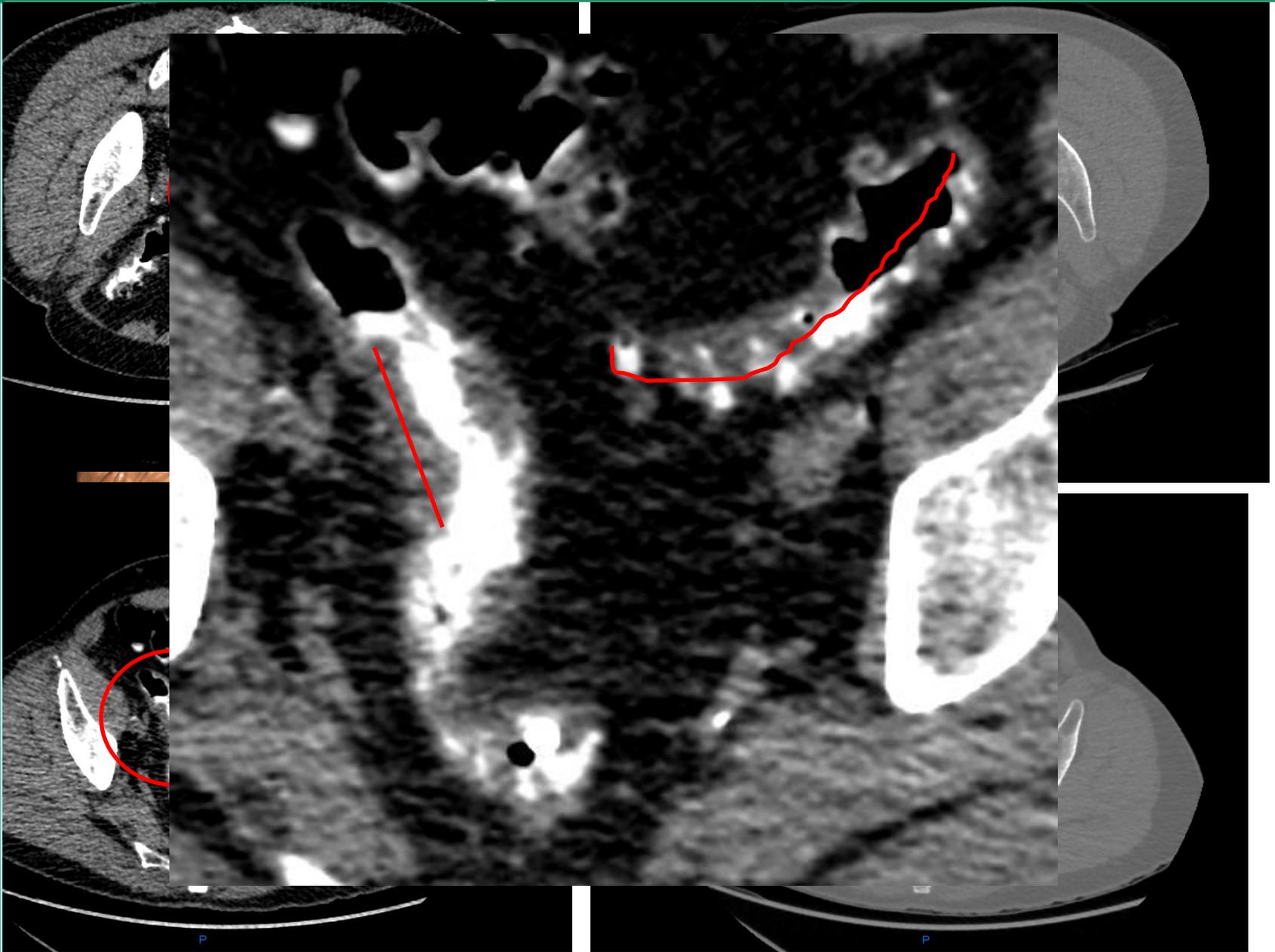


CTC Screening – Ferrara

Adesione II livello



Reperti colici



Reperti colici



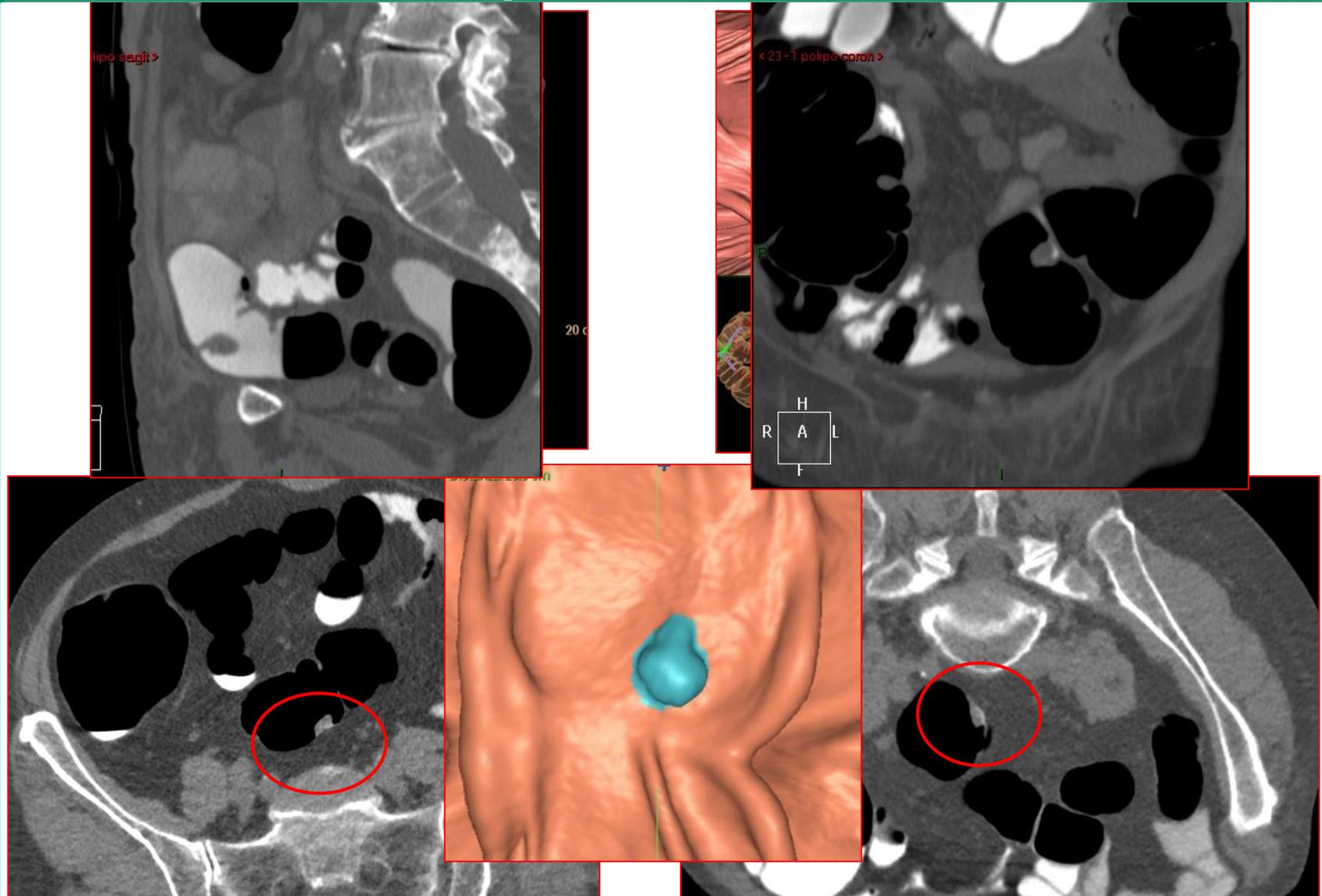
Informazioni cliniche
NEOPLASIA INFILTRANTE SIGMA DISTALE

Sede e Procedura
Colon, Biopsia endoscopica

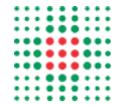
Materiale inviato
SIGMA SCREENING

Diagnosi Istologica
FRammenti con adenocarcinoma infiltrante.

Reperti colici



2 adenomi tubulari con displasia moderata



Reperti extra-colici

Radiology

Colorectal and Extracolonic Cancers Detected at Screening CT Colonography in 10 286 Asymptomatic Adults¹

RIGINAL RESEARCH ■ GASTROINTESTINAL IMAGING

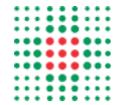
Perry J. Pickhardt, MD
David H. Kim, MD
Ryan J. Meiners, MD
Kimberly S. Wyatt, MD
Meghan E. Hanson, MD
Duncan S. Barlow, MD
Priscilla A. Cullen, RN
Rahim A. Remtulla, MD
Brooks D. Cash, MD

Purpose: To retrospectively determine the detection rates, clinical stages, and short-term patient survival for all unsuspected cancers identified at screening computed tomographic (CT) colonography, including both colorectal carcinoma (CRC) and extracolonic malignancies.

Materials and Methods: From April 2004 through March 2008, prospective colorectal and extracolonic interpretation was performed in 10 286 outpatient adults (5388 men, 4898 women; mean

Tipologia	n° (Stadio)	%
CCR	22 (12=I, 3=II, 4=III, 2=IV, 1 carcinoide ceco)	0,21
Altre neoplasie di cui:	36	0,35
• carcinoma renale	11 (10=I, 1=IV)	0,11
• carcinoma del polmone	8 (3=I, 5=III, 1 mesotelioma)	0,08
• linfoma non Hodgkin	6	0,06
• Neoplasie del surrene	3 (2 feo, 1 Ca)	0,03





SORVEGLIANZA POST POLIPECTOMIA

- % DI RECIDIVA...STRATIFICAZIONE DEL RISCHIO
- TIMING DEL FOLLOW-UP CON CO E' MOTIVO DI CONTROVERSIE
- ADESIONE AL FOLLOW-UP E' VARIABILE, BASSA (52-85%) CON CC.

“Current status on performance of CT colonography and clinical indications”
Laghi et al article in press European Journal of Radiology



Crollo adesione nel FOLLOW-UP (FE) - 2016

	Inviti	Aderenti	(%)	Aperte	Rifiuto visita/non rintracciabile (R\A)	Rifiuti
Invitati FOBT+	1489	1298**	87,2**	24 (1,6)	47 (3,2%)	120(8%)***
Invitati FU	711	563**	79,7**	8	91	45***
Inviti totali	2200	1865**	84,8**	32	138	165***

** CTC adhesion included: 75

*** II level refused. (Exam in private clinic)



FOLLOW-UP



Aiom

Linee guida

TUMORI DEL COLON RETTO



COLONSCOPIA: nei pazienti senza uno studio preoperatorio completo del colon deve essere eseguita appena possibile, comunque entro 6-12 mesi dall'intervento.



COLONSCOPIA: nei pazienti in cui l'esame endoscopico evidenzi "colon indenne" la ripetizione dell'esame endoscopico è consigliata dopo 1 anno dall'intervento, in seguito dopo 3 anni in assenza di adenomi e quindi ogni 5 anni, valutando eventuali comorbidità e l'età.



TAC TORACE e ADDOME SUPERIORE con contrasto: ogni 6-12 mesi per i primi 3-5 anni in funzione dell'entità del rischio. L'Ecografia ha una minore sensibilità e può sostituire la TAC, preferibilmente con l'impiego di contrasti ecografici, in caso di difficoltà logistiche e nei pazienti non candidabili ad ulteriori programmi chirurgici.

Colonscopia virtuale

+

TC torace addome con mdc ?





*World Journal of
Gastroenterology*

Online Submissions: <http://www.wjgnet.com/esps/>
bpgoffice@wjgnet.com
doi:10.3748/wjg.v20.i8.2014

World J Gastroenterol 2014 February 28; 20(8): 2014-2022
ISSN 1007-9327 (print) ISSN 2219-2840 (online)
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TOPIC HIGHLIGHT

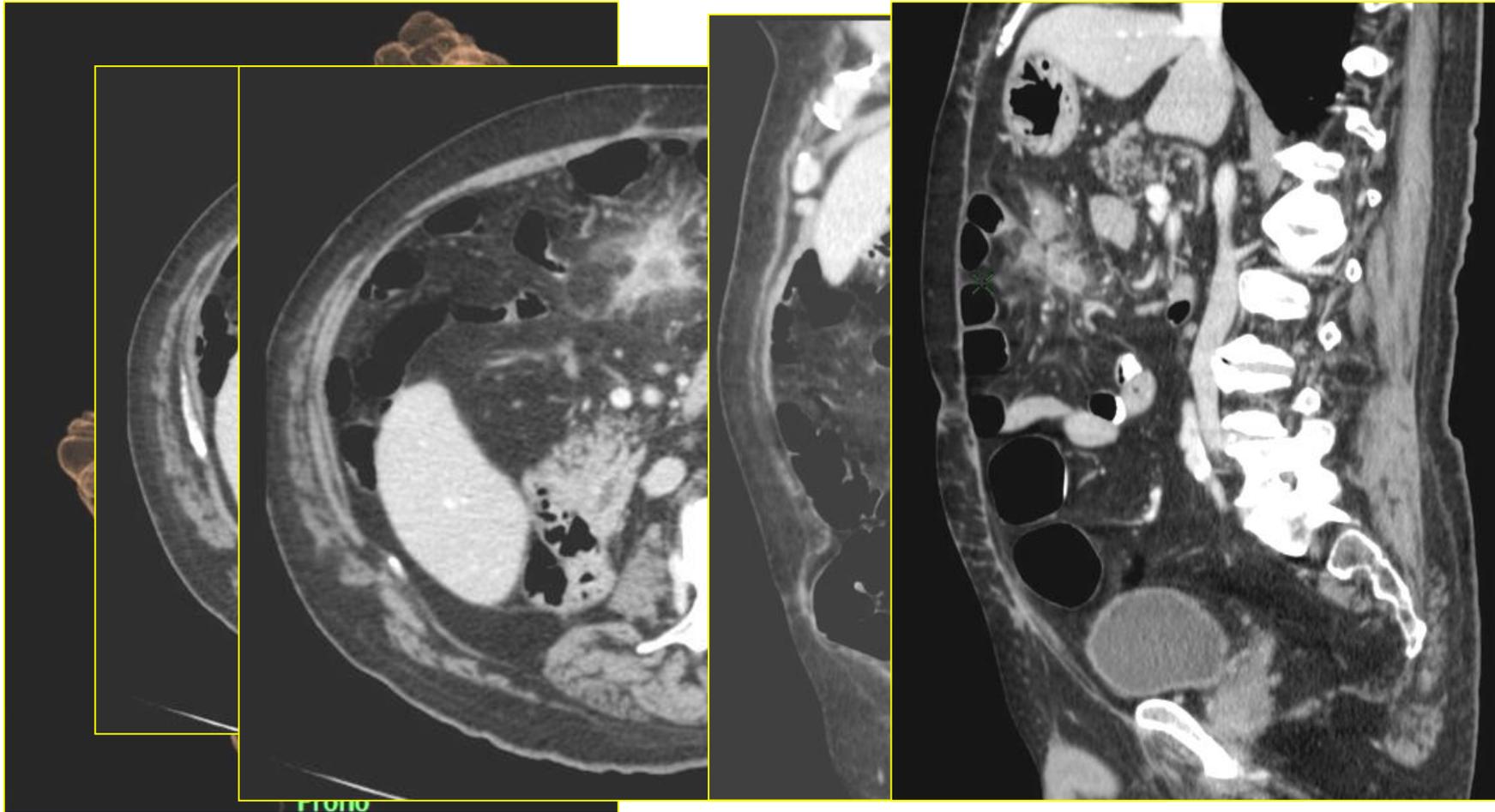
WJG 20th Anniversary Special Issues (5): Colorectal cancer

CT colonography in the diagnosis and management of colorectal cancer: Emphasis on pre- and post-surgical evaluation

Contrast-enhanced CTC can serve as an effective stand-alone tool for postcancer resection
surveillance

FOLLOW-UP

Pz maschio 69 aa. inserito in programma di sorveglianza per intervento circa 1 anno prima di emicolectomia dx per crc, lieve rialzo dei markers.

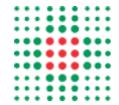


IBD (m. di Crohn e retto-colite ulcerosa)

- **NO** per la prima diagnosi (biopsia)
- **NO** per la sorveglianza (controindicaz assoluta !)

- **SI** Recidiva di m. di Crohn
- **SI** Stenosi severe non valicabili con CO

Biancone et al; Inflamm Bowel Dis 2003

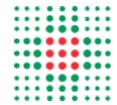


CONTROINDICAZIONI ASSOLUTE

- FLOGOSI ACUTA (DIVERTICOLITE)

- SORVEGLIANZA SINDR. EREDITARIE [FAP; HNPCC]



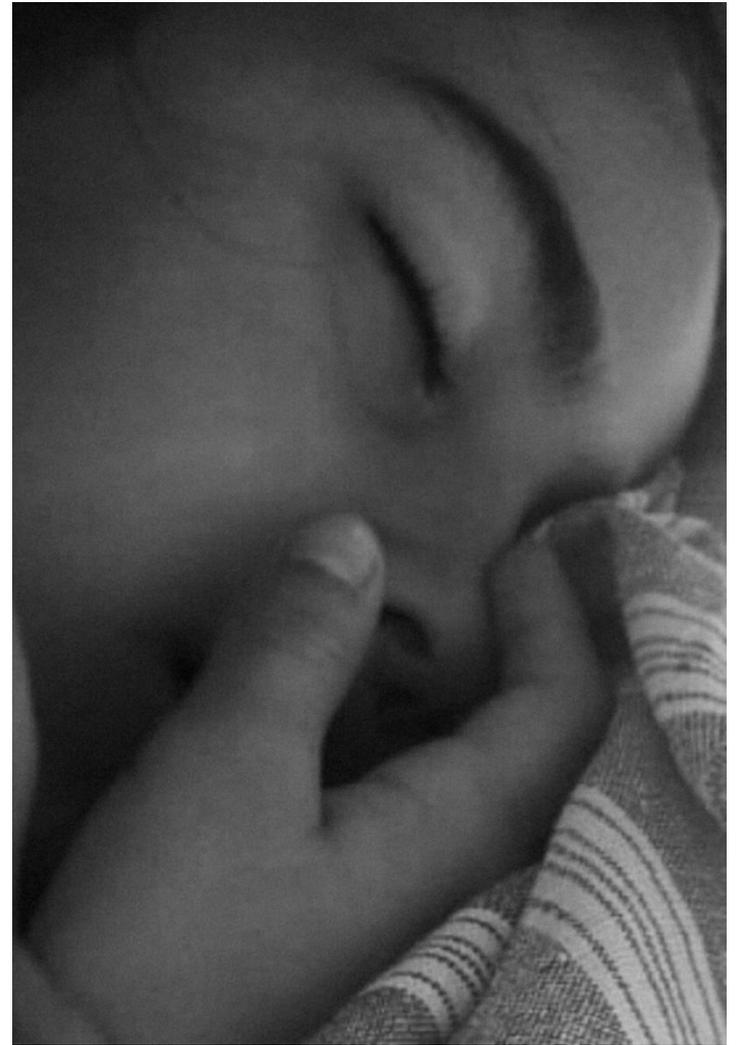


Conclusioni

- RSO + Colonscopia + polipectomia = **500 euro** per caso guarito.
- RSO + **CV** + CO + polipectomia = **700-750 euro** per caso guarito
- RSO + Colonscopia + emicolectomia = **5-8000 euro** per caso guarito
- Emicolectomia + chemioterapia adiuvante = **12-14000 euro** per caso guarito
- Emicolectomia+ chemioterapia palliativa = **25-45000 euro** per incremento sopravvivenza di 12-30 mesi
- Chemioterapia palliativa + farmaci biologici= **40-60000 euro** per incremento sopravvivenza di 12-30 mesi



Grazie per l'attenzione!



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