Early Age Colorectal Cancer Increasing Worldwide - Where Are We Going ?

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Introduction

Increasing incidence of colorectal cancer in young adults in Europe over the last 25 years

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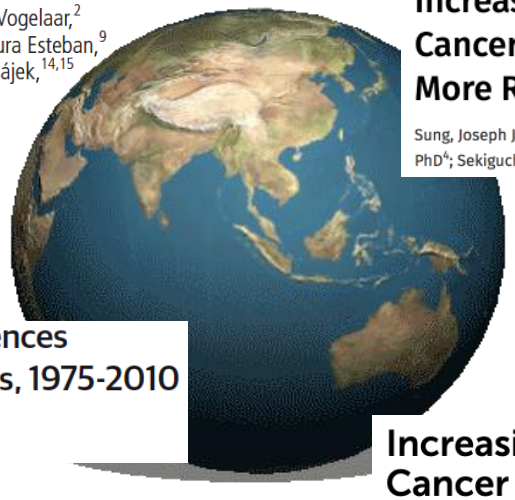


Increasing Trend in Young-Onset Colorectal Cancer in Asia: More Cancers in Men and More Rectal Cancers

Sung, Joseph J.Y. MD, PhD[1]; Chiu, Han-Mo MD, PhD[2]; Jung, Kyu-Won MD, MS[3]; Jun, Jae Kwan MD, PhD[4]; Sekiguchi, Masau MD, PhD[5]; Matsuda, Takahisa MD, PhD[5]; Kyaw, Moe H. MBBS, MSc[1]

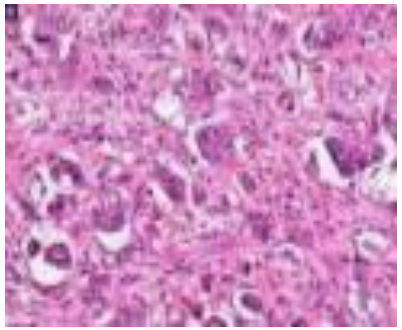
Increasing Disparities in the Age-Related Incidences of Colon and Rectal Cancers in the United States, 1975-2010

Christina E. Bailey, MD, MSCI; Chung-Yuan Hu, MPH, PhD; Y. Nancy You, MD, MHSc; Brian K. Bednarski, MD; Miguel A. Rodriguez-Bigas, MD; John M. Skibber, MD; Scott B. Cantor, PhD; George J. Chang, MD, MS

Increasing Incidence of Colorectal Cancer in Adolescents and Young Adults Aged 15–39 Years in Western Australia 1982–2007: Examination of Colonoscopy History

Early age onset CRC

Distal colon/rectum



Adverse histological features

Genetic predisposition

Research in Early Age Colorectal Cancer Trends

Research in Early Age Colorectal Cancer Trends (REACCT)

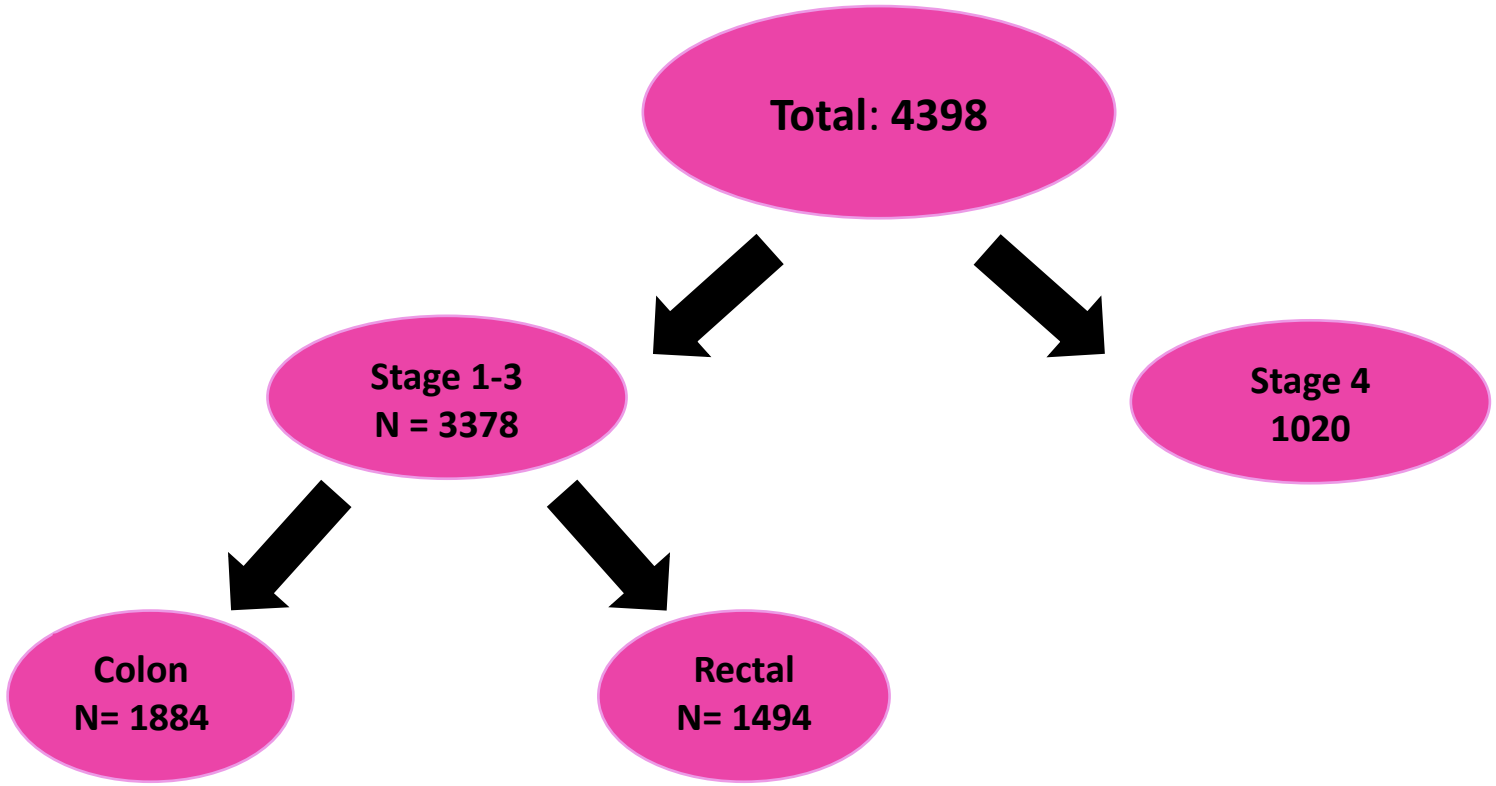
135 centers

43 countries

All continents

reacctcollaborative@gmail.com

REACCT Collaborative Data



REACCT Collaborative Data

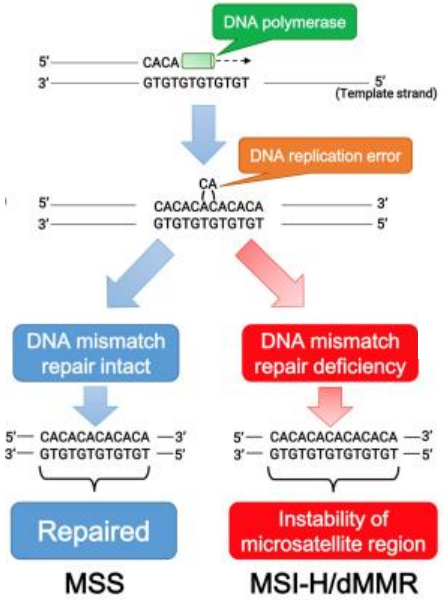
Clinicopathological features

Microsatellite status (IHC / PCR)

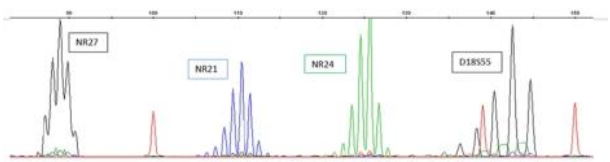
Outcomes

Stage I-III

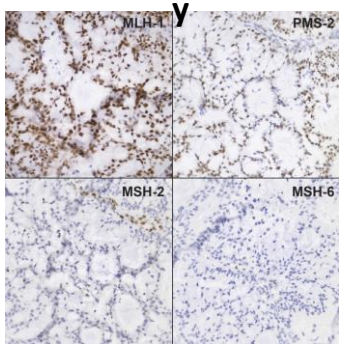
What about Microsatellite instability ?

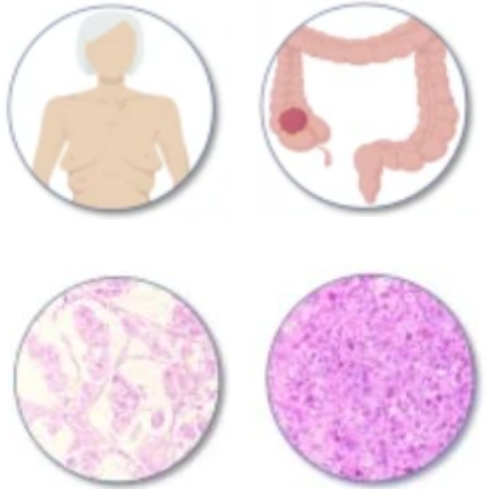


Polymerase Chain Reaction



Immunohistochemistry





Colon cancer: clinical characteristics

Microsatellite instability: 1 in 4 patients <50

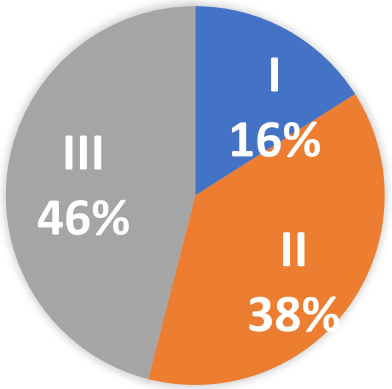
Proximal colon tumours

Family history

Equally common in males & females

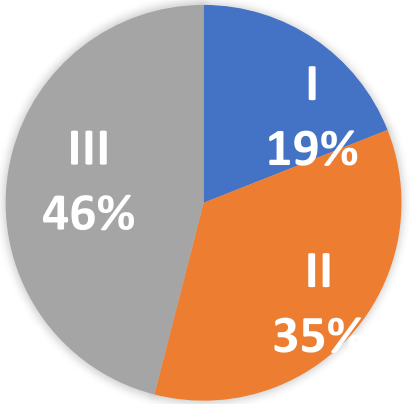
Pathology

MSI



Poorly differentiated / signet ring
BRAF
KRAS

MSS

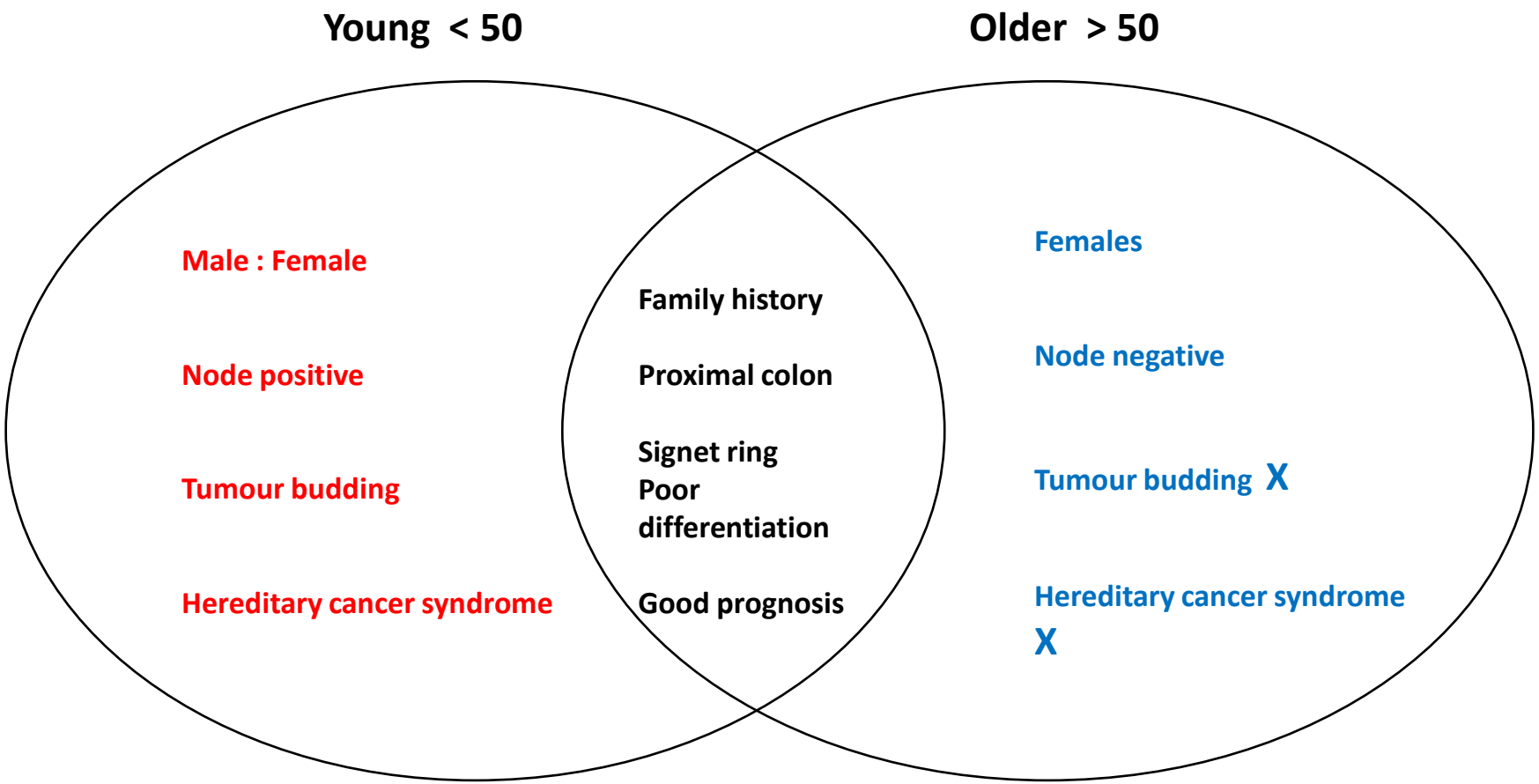


Extramural venous invasion
Lymphatic invasion

30% **Hereditary cancer syndrome** **5%**

Recurrence free survival at 5 years

	MSI	MSS
Stage I	95%	88%
Stage II	92%	88%
Stage III	80%	65%


Young < 50
Older > 50
Male : Female
Node positive
Tumour budding
Hereditary cancer syndrome
Family history
Proximal colon
Signet ring
Poor differentiation
Good prognosis
Females
Node negative
Tumour budding X
Hereditary cancer syndrome X

Rectal cancer: clinical characteristics

Microsatellite instability: 1 in 8 patients <50

Females accounted for the majority (58%)

Family history

cTNM

No difference in clinical stage

Rectal cancer: Pathology

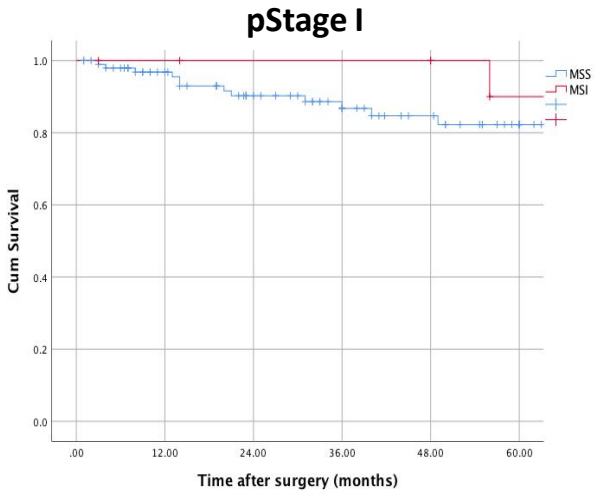
Patients with MSI

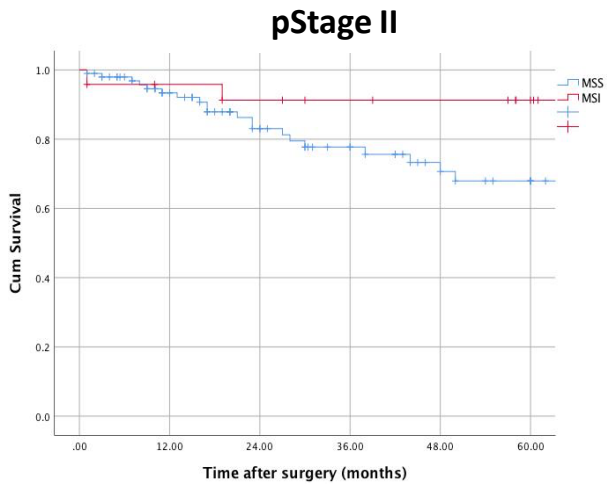
Less nodal positivity (22% vs 41%)

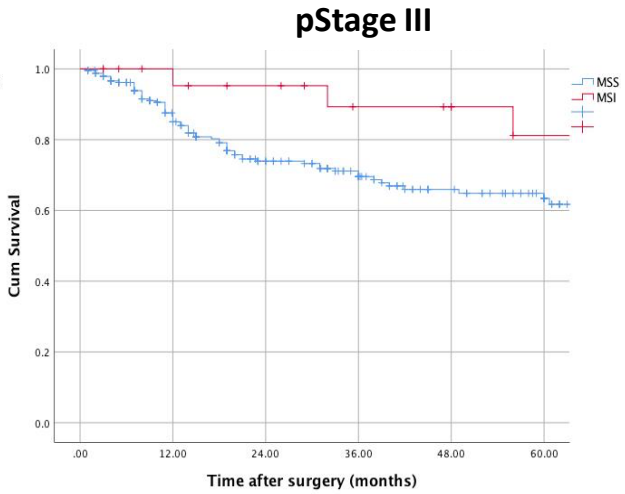
Hereditary cancer syndrome common (30% vs 3%)

pCR more likely (32% vs 15%) → Organ preservation TNT ?

MSI: Better DFS







Next steps

Biological databanking

Define oncotherapeutic strategies: TNT, immunotherapy

Screening opportunities