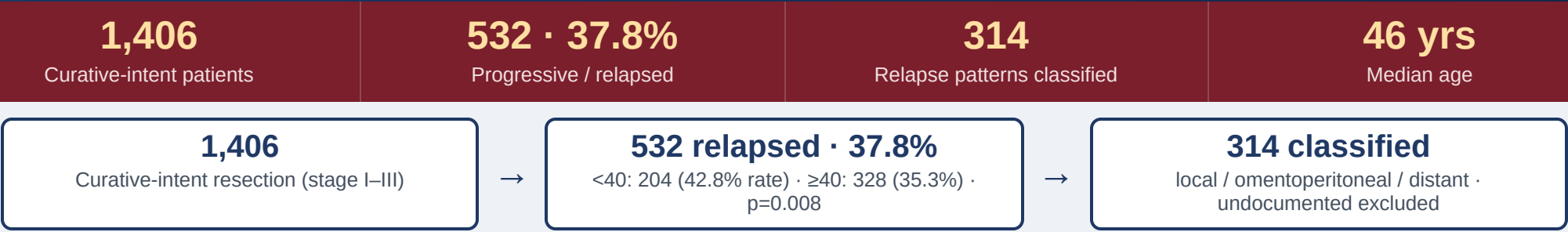


Patterns of Recurrence in Colorectal Cancer: Local, Omentoperitoneal and Organ Relapse Across Age Groups

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A retrospective cohort from a tertiary cancer centre in Pakistan



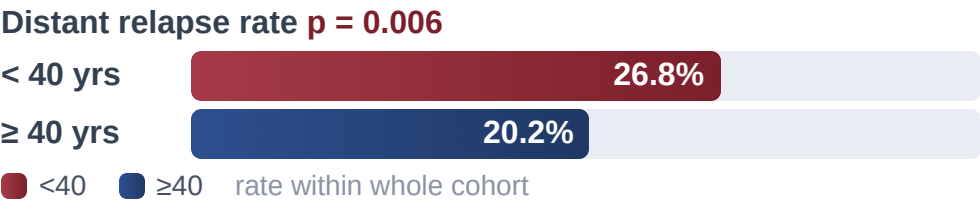
BACKGROUND & OBJECTIVE

Early-onset colorectal cancer (CRC) is rising, and the pattern of recurrence — local, transcoelomic (omentoperitoneal) or haematogenous (organ/distant) — carries distinct prognostic implications, yet is poorly characterised in South Asian populations where CRC presents younger. **Objective:** compare the pattern, determinants and post-recurrence survival of relapse between early-onset (<40 yrs) and older (≥40 yrs) patients after curative resection.

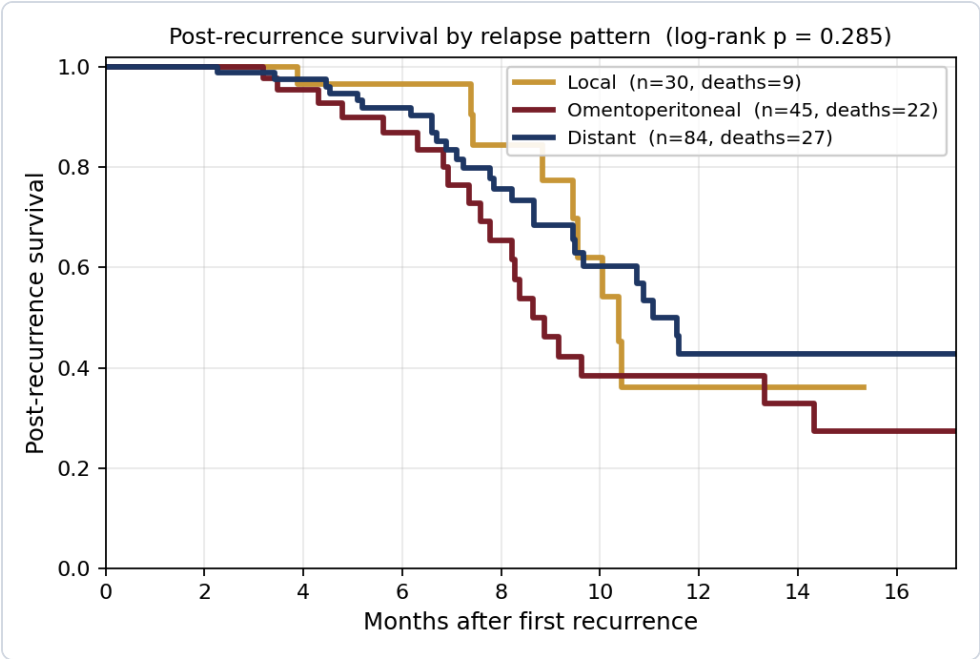
FINDING 1 — RELAPSE IS MORE COMMON & MORE DISTANT IN THE YOUNG

Age shifts relapse toward distant spread

<40 relapsed more overall (42.8% vs 35.3%, p=0.008); distant-metastasis rate 26.8% vs 20.2% (p=0.006); locoregional rate unchanged (15.9% vs 15.1%, p=0.73).



FINDING 3 — POST-RECURRENCE SURVIVAL BY PATTERN



Kaplan–Meier, n=159 with dated events (58 deaths). Median PRS: Local 10.4 · Omentoperitoneal 8.9 · Distant 11.1 months. Log-rank **p=0.28** — no significant difference; omentoperitoneal trended worst.

CONCLUSION

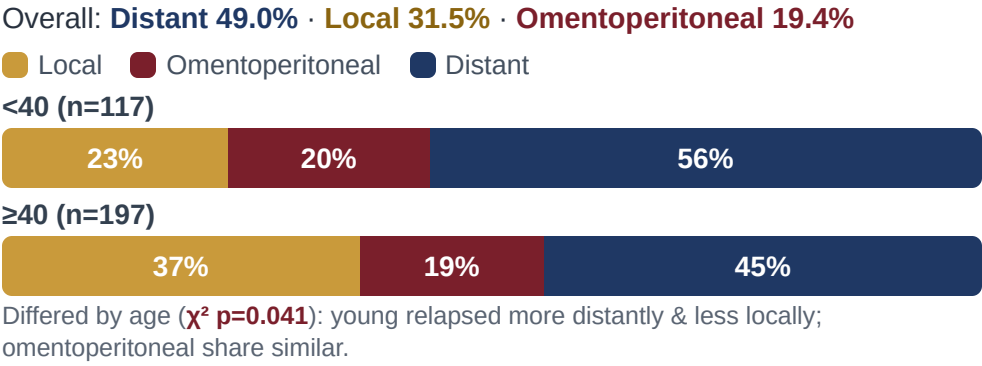
The pattern of first relapse differed by age (p=0.041): early-onset (<40) CRC relapsed **more distantly and less locally**, in keeping with adverse tumour biology and stage; the **omentoperitoneal** share did not differ by age, and post-recurrence survival did not differ significantly between patterns (p=0.28). Age shifts the local–distant balance of relapse rather than the propensity for transcoelomic spread.

References. 1. Breuer E, et al. Site of recurrence and survival after surgery for colorectal peritoneal metastasis. *J Natl Cancer Inst.* 2021;113(8):1027–35. 2. Cercek A, et al. A comprehensive comparison of early-onset and average-onset colorectal cancers. *J Natl Cancer Inst.* 2021;113(12):1683–92. 3. Pretzsch E, et al. Mechanisms of metastasis in colorectal cancer: hematogenous versus peritoneal spread. *J Oncol.* 2019;2019:7407190.

METHODS

Retrospective single-centre cohort. First relapse classified from imaging/MDT records as **local** (anastomosis, pelvic), **omentoperitoneal** (transcoelomic) or **distant** (organ/haematogenous); undocumented-site relapses excluded. Patterns and determinants tested by χ^2 /Fisher exact; post-recurrence survival by Kaplan–Meier with log-rank.

FINDING 2 — PATTERN OF FIRST RELAPSE (N=314)



DETERMINANTS & IMPACT

DISTANT-RELAPSE FACTOR	+ VS –	P
Signet-ring	36 vs 21	<0.001
T4 stage	39 vs 20	<0.001
Node positive	33 vs 14	<0.001
LNR > 0.25	41 vs 19	<0.001
LVI / PNI / poor grade	—	≤0.015

Impact

Supports risk-adapted surveillance — intensified distant/systemic imaging in young patients (relapse is more often distant) and continued locoregional surveillance in older patients — and cautions against attributing peritoneal risk to young age alone.