Searching for a true impact of combined therapies of rectal carcinomas in population cancer registry

Masaryk Memorial Cancer Institute
Institute of Biostatistics and Analyses, Brno, Czech Republic

J. Žaloudík, L. Dušek, J. Mužík
- Multidisciplinary assessment and combined therapeutic approach is necessary for more advanced rectal carcinomas - 75% of all

- Various combinations are to be based on personalized approach

- Comparative clinical evaluations of various treatment schedules are available from controlled clinical trials, which may or may not be confirmed in practice

- Data from population cancer registries are
  a) either - not available
  b) or - considered to be less „scientific“ than those from trials ... but reflect reality of oncology and address also equity issues

„Big science“ should not diverge too much from reality
Significant improvement in survival of rectal cancer patients from 1996-2000 and 2006-2010 by clinical stage

- Stage I+II: median survival >120 months
- Stage III: median survival 96 months
- Stage IV: median survival 74 months

5-year survival

0 50 100 150 200 250

Overall survival

0 0,1 0,2 0,3 0,4 0,5 0,6 0,7 0,8 0,9 1,0

Months
Impact of resection margins (R) and postoperative radiotherapy in R1 and R2 rectal carcinoma

(n = 8301 )

Parameter R estimated in 95% cases
Resection margins and total mesorectal excision

radial
distal
Almost none impact of histological grade on overall survival in rectal carcinoma

( n = 9821)

Histological grade (G) estimated in 85% cases
Impact of chemotherapy in stage III and IV rectal cancer

- OP+CHT
- OP only
- CHT only
- Untreated

Stage III
- OP+CHT
- OP only
- CHT only

Stage IV
- OP+CHT
- OP only
- Untreated
Impact of radiotherapy in stage I+II and III rectal cancer

- **Stage I+II**
  - OP only
  - OP+RT

- **Stage III**
  - OP only

Overall survival vs. Months
For improved predictivity we certainly need biobanking.

BBMRI.CZ/EU
Are we really facing the era of „personalized“ therapy?
... or is it only better subgrouping or stratification?

1) **Stage** adjusted therapy! - OP/RT/CHT-BT
2) **Site** adjusted therapy - timing, TME, stoma etc.
3) **Resection margins** adjusted therapy? - postopRT

4) **Histological grade** adjusted therapy?

5) **Microvascular invasion** adjusted therapy?
6) **Biomarker/receptor** adjusted therapy – EGFR/Kras only
7) **Immune reaction** adjusted therapy?

... detailed biomarkers and chemotherapy regimens are not recorded in the Czech National Cancer Registry (functional since 1977)