

Σε συνεργασία με

την Ουρολογική Κλινική ΓΝΑ «Γ. Γεννηματάς»



[www.akoslife.com](http://www.akoslife.com)

ΗΜΕΡΙΔΑ ΜΕ ΘΕΜΑ:

# Παθήσεις προστάτη

Τι το νεότερο

## υποκλασματοποίηση

Ιωάννης Γεωργακόπουλος, MD, PhD

Ακτινοθεραπευτής Ογκολόγος

ρόλος ακτινοθεραπείας

The NEW ENGLAND  
JOURNAL of MEDICINE

The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812

ORIGINAL ARTICLE

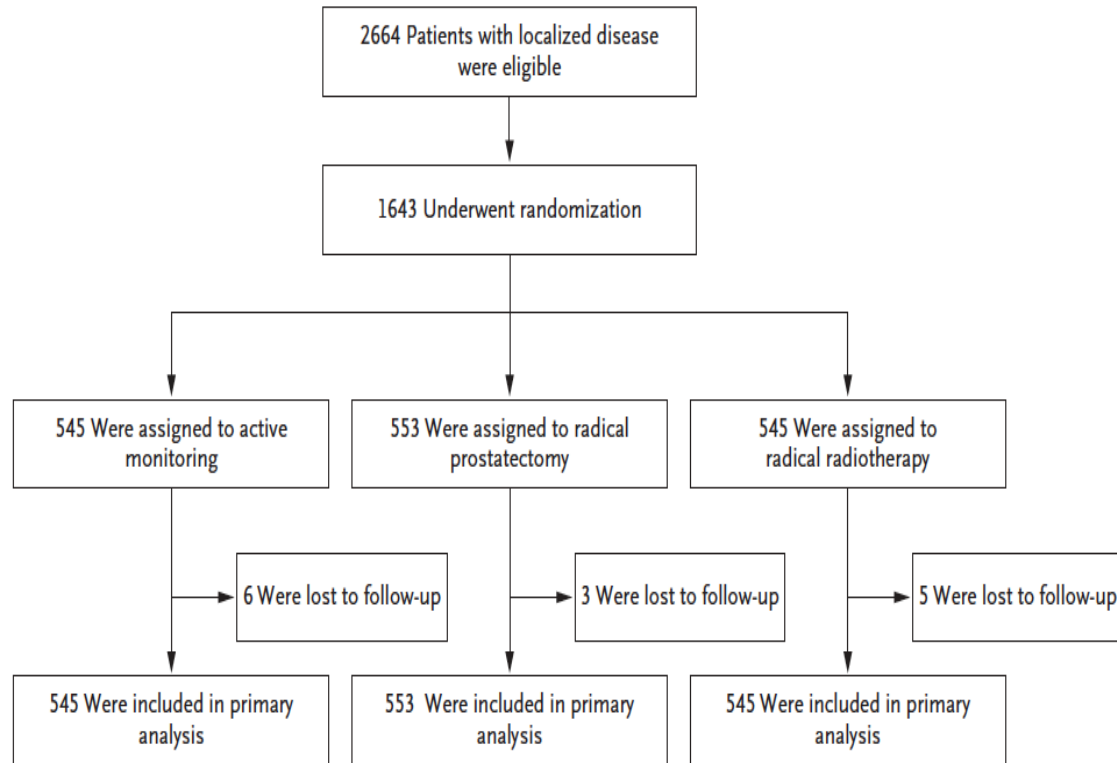
10-Year Outcome

of Patient-Reported Outcomes after Monitoring,  
Surgery, or Radiotherapy for Prostate Cancer

F.C. Hamdy, J.L. Donovan, J.  
R.M. Martin, J. Oxley, M. Rot  
R. Kockelbergh, H. Kyn

J.L. Donovan, F.C. Hamdy, J.A. Lane, M. Mason, C. Metcalfe, E. Walsh,  
J.M. Blazeby, T.J. Peters, P. Holding, S. Bonnington, T. Lennon, L. Bradshaw,  
D. Cooper, P. Herbert, J. Howson, A. Jones, N. Lyons, E. Salter, P. Thompson,  
S. Tidball, J. Blaikie, C. Gray, P. Bollina, J. Catto, A. Doble, A. Doherty, D. Gillatt,  
R. Kockelbergh, H. Kynaston, A. Paul, P. Powell, S. Prescott, D.J. Rosario, E. Rowe,  
M. Davis, E.L. Turner, R.M. Martin, and D.E. Neal, for the ProtecT Study Group\*

# ProtecT



|                                  | Active monitoring<br>(n=545) | Radiotherapy<br>(n=545) | Radical prostatectomy<br>(n=553) |
|----------------------------------|------------------------------|-------------------------|----------------------------------|
| <b>Age at invitation (years)</b> |                              |                         |                                  |
| 49-54                            | 58 (11%)                     | 62 (11%)                | 69 (12%)                         |
| 55-59                            | 140 (26%)                    | 141 (26%)               | 137 (25%)                        |
| 60-64                            | 184 (34%)                    | 176 (32%)               | 172 (31%)                        |
| 65-69                            | 163 (30%)                    | 166 (30%)               | 175 (32%)                        |
| <b>Median age (range)</b>        | <b>62 (50-69)</b>            | <b>62 (49-69)*</b>      | <b>62 (50-69)</b>                |
| <b>PSA (µg/L)</b>                |                              |                         |                                  |
| 3.0-5.9                          | 373 (68%)                    | 373 (68%)               | 371 (67%)                        |
| 6.0-9.9                          | 116 (21%)                    | 121 (22%)               | 123 (22%)                        |
| ≥10.0                            | 56 (10%)                     | 51 (9%)                 | 59 (11%)                         |
| <b>Median PSA (range; µg/L)</b>  | <b>4.6 (3.0-20.9)†</b>       | <b>4.6 (3.0-18.8)</b>   | <b>4.7 (3.0-18.4)</b>            |
| <b>Gleason score</b>             |                              |                         |                                  |
| 6                                | 421 (77%)                    | 423 (78%)               | 422 (76%)                        |
| 7                                | 111 (20%)                    | 108 (20%)               | 120 (22%)                        |
| 8-10                             | 13 (2%)                      | 14 (3%)                 | 10 (2%)                          |
| Missing                          | 0                            | 0                       | 1 (<1%)                          |
| <b>Clinical stage</b>            |                              |                         |                                  |
| T1c                              | 410 (75%)                    | 429 (79%)               | 410 (74%)                        |
| T2                               | 135 (25%)                    | 116 (21%)               | 143 (26%)                        |

# ProtecT

- 545 active monitoring
  - PSA q3 m x 1y, q6 m thereafter, rise of 50% in 12 m: consider biopsy
- 553 radical prostatectomy
- 545 radical radiotherapy
  - RT: 3DCRT 74 Gy (37 fr) + NAD (3-6 m)
- 10 y follow up
- Disease Progression, Metastasis, Cancer Specific Survival, Overall Survival
- Toxicity
- Quality of Life
  - baseline, 6 m, 12m and annually thereafter
  - ICIQ:** International Consultation of Incontinence Questionnaire
  - EPIC:** Expanded Prostate Cancer Index Composite
  - ICSmaleSF:** International Continence Society male Short Form
  - SF12:** Medical Outcomes Study 12
  - HADS:** Hospital Anxiety and Depression Scale
  - EORTC- QLQ C30**

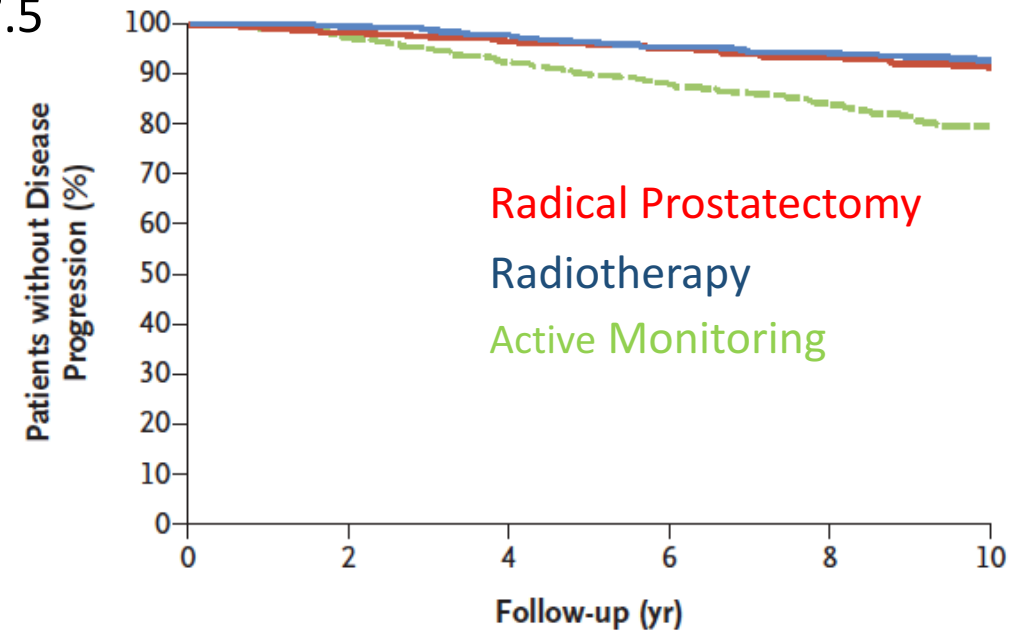
# ProtecT αποτελέσματα Θεραπείας

- Disease Progression
  - AM 112 men; 22.9 per 1000 person-years; 95% CI, 19.0 to 27.5
  - RP 46 men; 8.9 per 1000 person-years; 95% CI, 6.7 to 11.9
  - RT 46 men; 9.0 per 1000 person-years; 95% CI, 6.7 to 12.0

$p < 0.001$
- Metastasis
  - AM 33 men; 6.3 per 1000 person-years; 95% CI, 4.5 to 8.8
  - RP 13 men; 2.4 per 1000 person-years; 95% CI, 1.4 to 4.2
  - RT 16 men; 3.0 per 1000 person-years; 95% CI, 1.9 to 4.9

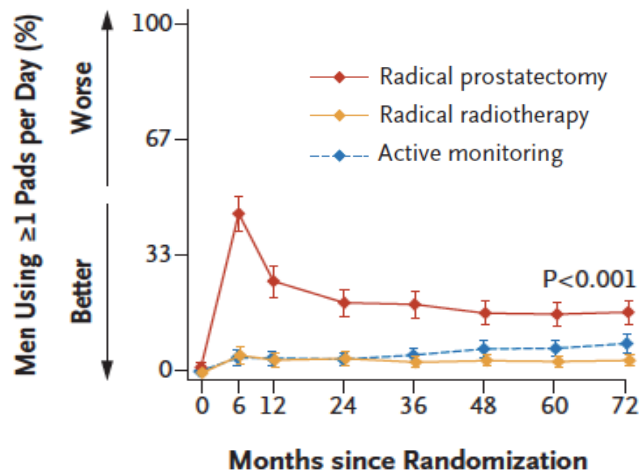
$p = 0.004$
- Prostate Cancer Specific Survival - no significant difference

Freedom from Disease Progression

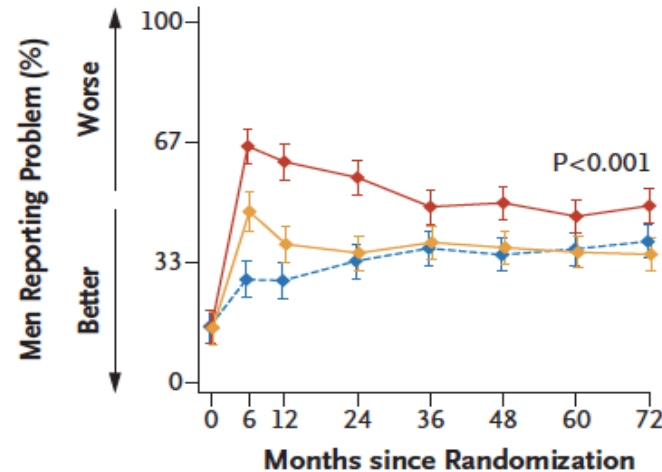


# ProtecT τοξικότητα Θεραπείας

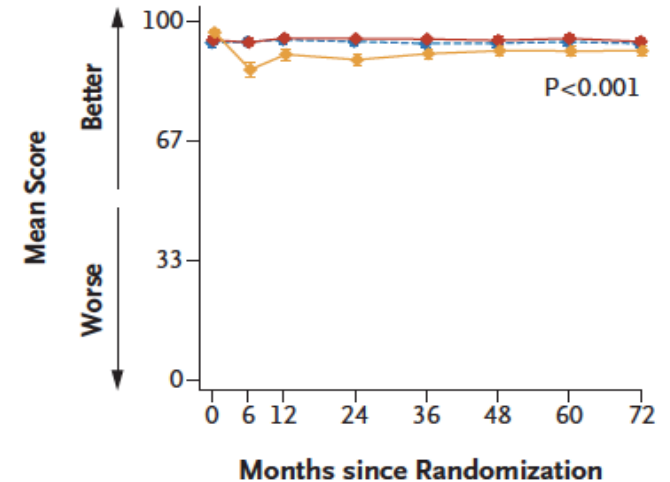
EPIC Item:  $\geq 1$  Pad per Day



EPIC Problem with Erectile Dysfunction



EPIC Bowel Bother Score

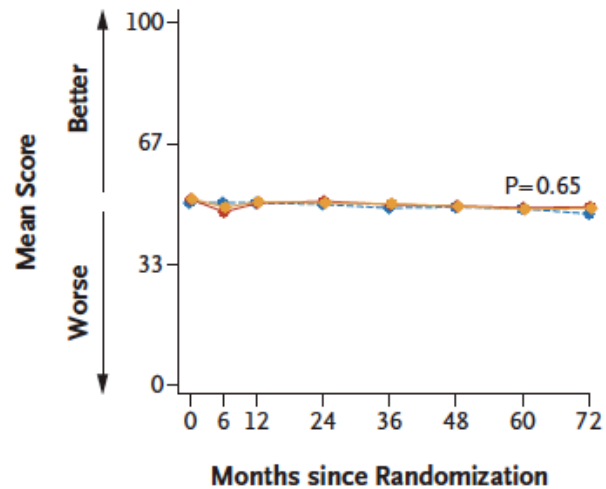


- prostatectomy greatest negative effect on **urinary continence** at 6 months; the effect of urinary incontinence on QoL worse in the prostatectomy group for 2 years, but then similar to that reported in the other groups
- **nocturia** increased in all groups; the increase particularly in the radiotherapy group at 6 months
- at baseline 67% of men reported **erections** firm enough for intercourse, but by 6 months this rate fell to 52% in the active-monitoring group, to 22% in the radiotherapy group, and to 12% in the prostatectomy group
- **bowel function** worse in the radiotherapy group than in other groups. However, there was then considerable recovery in the radiotherapy group for these measures, apart from more frequent **bloody stools**

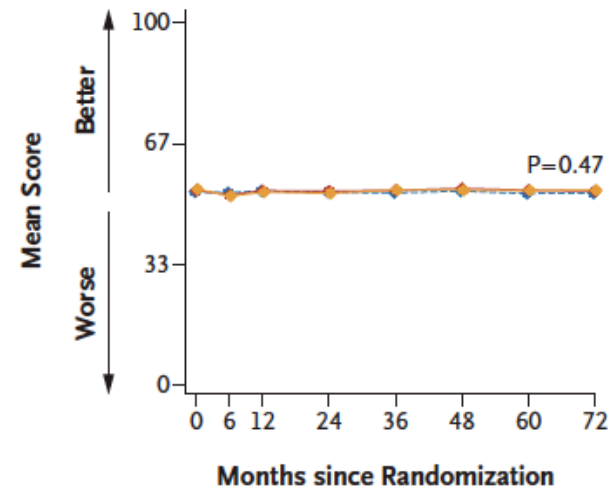
# ProtecT σχετική με την υγεία ποιότητα ζωής

—●— Radical prostatectomy —●— Radical radiotherapy —●— Active monitoring

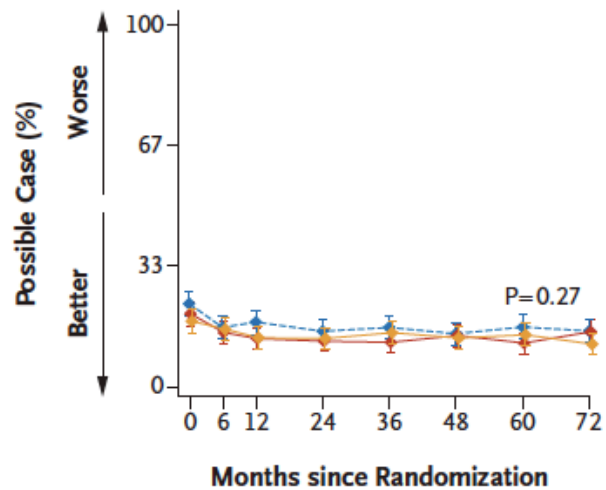
SF-12 Physical Health Score



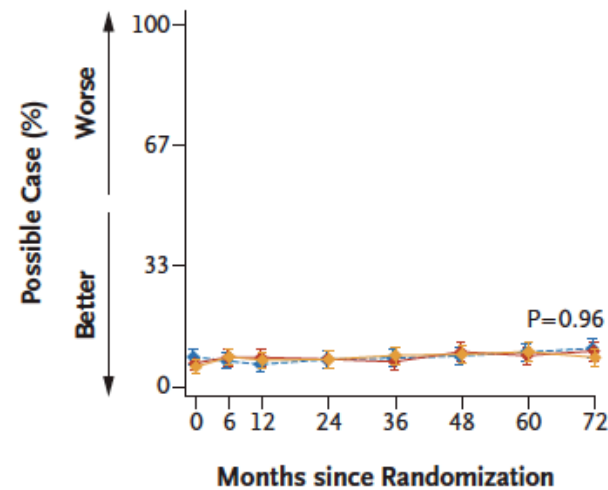
SF-12 Mental Health Score



HADS Anxiety



HADS Depression





ραδιοβιολογία

ραδιοβιολογία

linear quadratic model

$$SF(D) = e^{-\alpha \cdot D - \beta \cdot D^2}$$