Use of 5α-reductase inhibitors for benign prostatic hypertrophy and risk of high-grade prostate cancer: A French population-based study (MP04-10)

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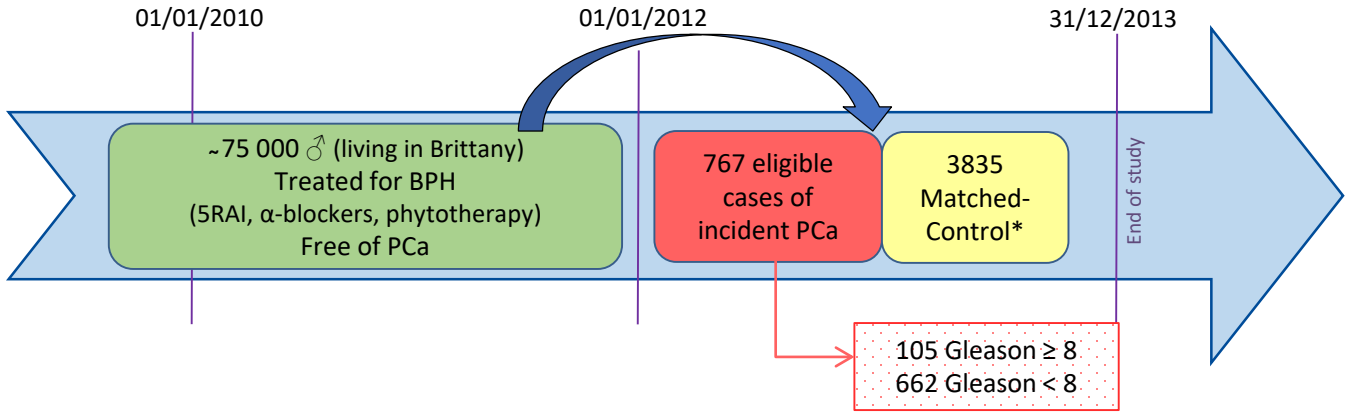
Background

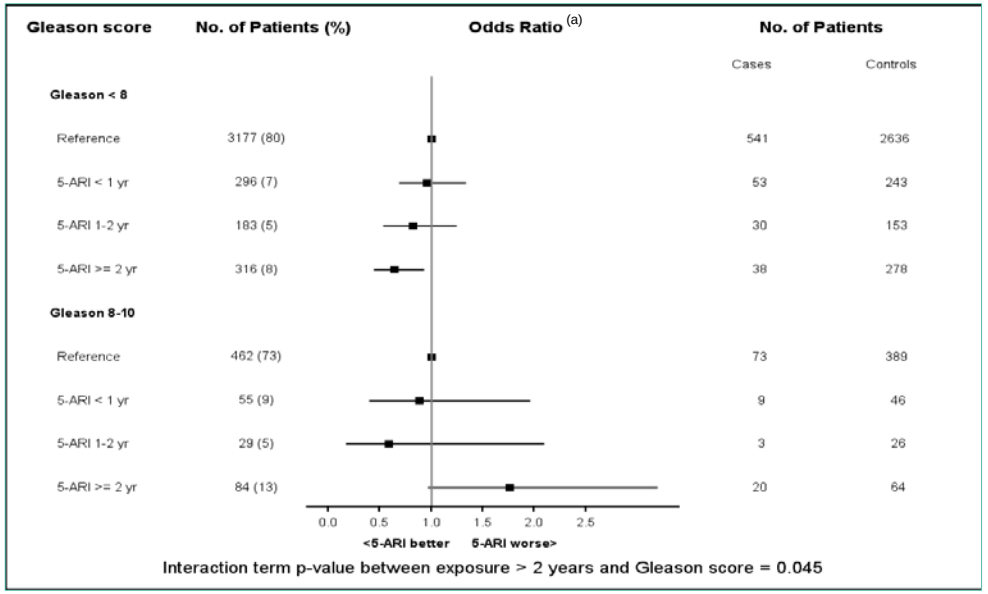
5 α-reductase inhibitors (5ARI) are used to treat symptomatic benign prostate hypertension (BPH). Two clinical trials (PCPT[1], REDUCE[2]) showed that 5ARI decreased prostate cancer (PCa) risk but increased high grade cancer. Though later studies reported somehow reassuring results, these findings did not rule out an increased risk of high-grade prostate cancer.

Objective

To assess among BPH treated population (in Brittany, France) the association between 5ARI use and risk of PCa, according to Gleason score (< 8 or ≥ 8), compared to other medical treatments.



Results



* Cases and controls were matched on age and delay between the first observed delivery of drug for BPH and index date.

(a) Further adjustment on diabetes, lipid-lowering drug claims, obesity, COPD (as a proxy of smoking habit), annual number of prostate sample collection (biopsy or transurethral resection) and annual number of PSA measurement.

Discussion

In our study targeting subjects receiving drugs licensed for symptomatic or complicated BPH, a qualitative significant heterogeneity was observed across cancer grades when estimating association between prostate cancer and 5-ARI long term use (≥ 2 years) versus no 5-ARI exposure. It could be wise not to treat more than 2 years with 5-ARI for symptomatic or complicated BPH.

Our study results differ in some important aspects of clinical setting and methodology to three other observational studies (Murtola et al., BJC 2009; Robinson et al. , BMJ 2013; Wallerstedt et al., J Natl Cancer Inst. 2018) but appear in line with PCPT (Thompson et al. , NEJM 2003) and REDUCE trials (Andriole et al., NEJM 2010). The three observational studies used men free of prostate cancer as controls (Robinson et al., BMJ 2013), compared drug users to non-users (Murtola, et al., BCJ 2009), or used “non 5-ARI users” as reference (Wallerstedt et al., J Natl Cancer Inst. 2018) (no details as regards BPH status or non 5-ARI BPH treatment were provided).