Actual impact of 68Ga-PSMA-11 PET/CT on the management of prostate cancer patients with biochemical recurrence.


1 UCLA, France.

Purpose: In this prospective survey of referring physicians, we investigated whether and how Gallium-68 Prostate Specific Membrane Antigen Positron Emission Tomography/Computed Tomography (PSMA-11 PET/CT) affects the actually implemented management of prostate cancer patients with biochemical recurrence (BCR). Methods: We conducted a prospective survey of physicians (NCT02940262) who referred 161 patients with prostate cancer BCR (median Prostate Specific Antigen (PSA) value 1.7 ng/ml (range 0.05-202)). Referring physicians completed one questionnaire prior to the scan to indicate the treatment plan without PSMA-11 PET/CT information (Q1; n = 101); one immediately after the scan to denote intended management changes (Q2; n = 101); and one 3 to 6 months later to document the final implemented management (Q3; n = 56). Implemented management was also obtained via electronic chart review and/or patient contact (n = 45). Results: Complete documented management strategy (Q1+Q2+implemented management) was available in 101/161 patients (63%). Seventy-six of these (75%) had a positive PSMA-11 PET/CT study. The actually implemented management differed from the pre-scan intended treatment plan (Q1) in 54/101 patients (53%). The post-scan intended management (Q2) differed from the pre-scan intended management (Q1) in 62/101 patients (61%); however, these intended changes were not implemented in 29/62 patients (47%). Pelvic nodal and extra-pelvic metastatic disease on PSMA-11 PET/CT (PSMA T0N1M0 and PSMA T0N1M1 patterns) were significantly associated with implemented management changes (P = 0.001, 0.05). Conclusion: PSMA-11 PET/CT results in actually implemented management changes in more than 50% of prostate cancer patients with BCR (54/101; 53%). However, intended management changes early after PSMA-11 PET/CT frequently differ from actually implemented management changes.

KEYWORDS: 68Ga-PSMA; Oncology: GU; PET/CT; biochemical recurrence; impact on implemented management; prostate cancer

PMID: 29242398 DOI: 10.2967/jnumed.117.202945