P65 PROMIS demonstrates HRQOL impairments in patients with new inflammatory arthritis due to cancer immunotherapy

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Objective: Immune checkpoint inhibitors (ICIs) have been revolutionary for treating multiple cancer types, but up to 10% of patients may develop new inflammatory arthritis (IA) because of these treatments. ICI-induced inflammatory arthritis (ICI-IA) is an impactful and often persistent side effect of cancer immunotherapy that can lead to permanent joint damage and negatively affect HRQOL. Although there are similarities between ICI-IA and other forms of inflammatory arthritis like rheumatoid arthritis (RA), key differences exist between these conditions in terms of clinical presentation, joints affected, and requirements for immunomodulatory therapy. We were interested in the range of symptoms and potential impacts on HRQOL in patients with recent onset ICI-IA compared with patients with early RA.

Methods: We examined HRQOL using PROMIS short forms (i.e., physical function, pain interference, fatigue, depression, anxiety, sleep, participation in social roles and activities) and arthritis disease activity measured by the composite Clinical Disease Activity Index (CDAI) in patients with new onset ICI-IA and early RA at their baseline visit.

Results: 100 patients from Johns Hopkins with ICI-IA were compared with 75 patients with early RA from a multicenter study (CATCH-US). Patients with ICI-IA were older (61 vs. 44 years old) and more commonly male (40.8% vs. 14.3%). Patients with ICI-IA had worse mean baseline pain interference (59.3 vs 55.3), fatigue (56.4 vs 49.4), physical function (39.8 vs 46.7), and sleep disturbance (56.8 vs 49.4) than patients with early RA. The ability to participate in social roles, anxiety, and depression were similar between the two groups. When PROs were compared by CDAI category for patients with ICI-IA, pain interference was higher and the ability to participate and physical function were lower (worsened) in those with high disease activity compared to those with low or moderate disease activity. Interestingly, fatigue was similarly increased compared to population norms regardless of ICI-IA disease activity.

Conclusions: These findings highlight the severity of new onset ICI-IA on HRQOL compared to early RA and that fatigue may be particularly troublesome for patients with ICI-IA regardless of arthritis disease activity.