Objectively Assessed Physical Activity Levels in Spanish Cancer Survivors

Ana Ruiz-Casado, MD, PhD, Ana Soria Verdugo, NP, María J. Ortega Solano, NP, Itziar Pagola Aldazabal, PhD, Carmen Fiuza-Luces, MSc, Lidia Brea Alejo, BS, Julio R. Padilla del Hierro, MSc, Isabel Palomo, BS, Oscar Aguado-Arroyo, NP, MS, Nuria Garatachea, PhD, Héctor Cebolla, PhD, and Alejandro Lucia, MD, PhD

About 65% of adults with cancer will survive five years after diagnosis (National Cancer Institute, 2013). An estimated 13.7 million cancer survivors were living in the United States in 2012, and the figure continues to rise (Siegel et al., 2012), and the figure continues to rise. Despite this trend, cancer survivors do not routinely receive counseling by healthcare professionals on lifestyle habits linked to an improved quality of life and prolonged survival, particularly physical activity (PA) (Daley, Bowden, Rea, Billingham, & Carmichael, 2008).

According to PA guidelines issued by the U.S. Department of Health and Human Services (2008) and the World Health Organization ([WHO], 2010), adults should undertake 150 minutes per week or more of moderate PA or 75 minutes per week or more of vigorous-intensity PA, or an equivalent combination of the two (i.e., 150 minutes per week of moderate-to-vigorous PA [MVPA]). The American College of Sports Medicine (Schmitz et al., 2010) concluded that regular PA is safe during and after cancer treatment, and that it leads to several improvements in the cancer sequela, including better physical functioning and health-related quality of life (both during and after treatment) and reduced cancer-related fatigue (McClellan, 2013; Mishra et al., 2012). Such improvements have prompted recommendations for cancer survivors to avoid physical inactivity and to follow international PA guidelines (Demark-Wahnefried & Jones, 2008; Rock et al., 2012; Schmitz et al., 2010). Additional support for encouraging PA in this population is provided by the finding that cardiorespiratory fitness shows significant negative association with cancer mortality (Sui et al., 2007), and that supervised regular PA interventions are effective in improving cardiorespiratory fitness in adults with cancer (Jones et al., 2011). In addition to the independent protective role of cardiorespiratory fitness against cardiovascular risk, obesity tends to attenuate the protective value of fitness (Carnethon et al., 2003).

Therefore, to design effective PA interventions, PA levels and their relationship with cardiorespiratory fitness...