Onset of puberty and testicular function in healthy young men

Sir,

Jensen et al. (2016) report that poorer testicular function in young men was closely associated with a history of delayed puberty development in a cross-sectional study. Although the response rate was only 29%, the authors concluded that age at the onset of puberty may be a predictor of male reproductive health. I have some concerns regarding their study.

First, Priskorn et al. (2016) conducted a cross-sectional study on the association between sedentary lifestyle and testicular function in healthy young men. Television watching and computer time were used as indicators of sedentary behavior and physical activity was also considered in their analysis. The authors recognized that television watching time and self-reported physical fitness were negatively associated with some testicular function indicators. In addition, Nordkap et al. (2016) conducted a cross-sectional study on the association between psychological distress and testicular function in healthy young men, and showed a negative association between self-reported stress and semen quality. These studies were conducted on the same database that Jensen et al. used. I recommend Jensen et al. using these significant indicators simultaneously for risk assessment in respect of testicular function.

Secondly, a cross-sectional design cannot confirm a biological mechanism for the association. In addition, psychological stress is closely associated with sedentary lifestyle in children (Hamer et al., 2009) and adolescents (Sund et al., 2011). Thus, inter-relationships among several predictors should be considered when investigating associations with testicular function.

Conflict of interest

None declared.

References


Reply: Onset of puberty and testicular function in healthy young men

Sir,

We thank Kawada for his interest in our paper (Jensen et al., 2016). He argues that we have previously published studies within the same group of young unselected men including the impact of sedentary lifestyle and psychological distress on testicular function (Nordkap et al., 2016, Priskorn et al., 2016). We agree that a cross-sectional study cannot confirm biological mechanisms and that the different risk factors are correlated. The men were, however, unaware of their semen quality when they responded to the questions about sedentary lifestyle and psychological distress during the past months and onset of puberty, and their answers are therefore not likely to be associated with testicular function. We evaluated covariates possibly associated with semen parameters and puberty, sedentary lifestyle and psychological distress and they were excluded stepwise if they did not change the effect estimate of one or more semen parameters >10%. In the paper on psychological stress (Nordkap et al., 2016) we adjusted for ejaculation abstinence period, age, alcohol and caffeine consumption, smoking status of the men, previous sexually transmitted diseases, physical fitness, maternal smoking during pregnancy and length of mother’s education and in the sedentary lifestyle paper (Priskorn et al., 2016) and onset of puberty paper (Jensen et al., 2016) we adjusted for alcohol intake, current smoking and exposure to smoking in utero. We therefore agree that inter-relationships among several predictors should be considered when investigating associations with testicular function and will continue to do so.

References


Nordkap L, Jensen TK, Hansen AM, Lassen TH, Bang AK, Joensen UN, Blomberg Jensen M, Skakkebaek NE, Jørgensen N. Psychological stress