

# C-Reactive protein and insulin growth factor 1 serum levels during the menstrual cycle in adolescents with Type 1 diabetes

Codner, E.

Merino, P. M.

Martínez, D.

Lopez, P.

Godoy, C.

Iñiguez, G.

Cassorla, F.

Perez-Bravo, F.

© 2016 Diabetes UK. Aims: To evaluate C-reactive protein, insulin growth factor 1 and lipid levels during the follicular and luteal phases in adolescents with Type 1 diabetes. Methods: Adolescents with Type 1 diabetes (N = 40) and healthy controls (C; N = 43) were studied during the follicular and luteal phases of their menstrual cycles. C-Reactive protein, insulin growth factor 1 and lipid levels were measured. Results: Adolescents with Type 1 diabetes exhibited higher C-reactive protein levels than the C group during the follicular ( $P < 0.0001$ ) and luteal phases ( $P < 0.01$ ). The elevation of C-reactive protein levels was more pronounced in overweight adolescents with Type 1 diabetes than in adolescents in the C group. More adolescents with Type 1 diabetes were classified as having an elevated risk of cardiovascular disease (C-reactive protein  $> 3$  mg/l) in the luteal phase than in the follicular phase (37.5% and 17.5%, respectively); half of the overweight adolescents with Type 1 diabetes