Table 2

**Role of antioxidant micronutrients on CP clinical course**

**(according to R. Talukdar et al., 2013 [142])**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Author** | **Study type** | **Antioxidant micronutrients used** | **Indications; study duration** | **Outcomes** |
| S. Uden et al., 1990 [29] | DB double dummy cross over | Vit C; Vit E; Beta carotene; Selenium; Methionine | n = 20 (ACP, ICP, IAP) 20 wk | ↓ in VAS |
| G. De las Heras Castano et al., 2000 [155] | Open label | Vit C; Vit E; Beta carotene; Selenium; Methionine | n = 19 (ACP, ICP, RAP) 12 mo | ↓ in VAS,  ↓ admission,  ↑ exocrine fn |
| P. Dite et al., 2003 [38] | Open label | Vit C; Vit E | n = 70 (ACP, ICP) 12 mo | Pain abolished in 44% |
| G. R. Kirk et al., 2006 [43] | DB RCT cross over | Vit C; Vit E; Beta carotene; Selenium; Methionine | n = 19 (all ACP) 20 wk | ↑ QOL |
| P. Bhardwaj et al., 2009 [130] | DB RCT | Vit C; Vit E; Beta carotene; Selenium; Methionine | n = 127 (ACP, ICP) 6 mo | 32% patients pain free  ↓ No. of painful days  ↓ analgesic need |
| A. K. Siriwardena et al., 2012 [27] | DB RCT | Vit C; Vit E; Beta carotene; Selenium; Methionine | n = 70 (ACP, ICP) 6 mo | ↔ pain  ↔ QOL |

Note:

↓: Indicates reduction; ↑: Indicates improvement; ↔: Indicates equivocal. DB: Double blind; RCT: Randomized controlled trial; QOL: Quality of life; Vit: Vitamin; ACP: Alcoholic chronic pancreatitis; IAP: Idiopathic acute pancreatitis; RAP: Recurrent acute pancreatitis; fn.: Function; ICP: Idiopathic chronic pancreatitis.