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**Treatment of chronic hepatitis using whey protein (nonheated)** 

## **PR514**

## TREATMENT OF CHRONIC HEPATITIS USING WHEY PROTEIN (NON-HEATED)

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In an open study, the clinical efficacy of whey protein (Immunocal: cysteine content; 7.6-fold that of casein) isolated from fresh milk and purified without being heated was evaluated based on liver function test, immunological parameters, plasma or lymphocyte GSH concentrations and hepatitis virus markers in 25 patients with chronic hepatitis B or C. Immunocal (12 g as protein) food (mousse) was given twice a day, in the morning and evening, for 12 weeks (test period). Casein (12 g as protein) food (mousse) was given for 2 weeks prior to the start of supplement with Immunocal food (induction period) and for 4 weeks after the end (follow-up period). The effects of Immunocal food on various clinical parameters were examined at 4-week intervals for 18 weeks to evaluate the efficacy of Immunocal. As a result, serum ALT activity decreased in 6 to 8 patients with chronic hepatitis B, 12 weeks after the start of supplement with Immunocal food. Plasma GSH concentrations were increased in 5 of the 8 patients. Serum concentrations of lipid peroxides significantly decreased 8 weeks after Immunocal food. Serum IL-2 levels began to increase 8 weeks and remained high even after supplement with Immunocal food had ended. Furthermore, NK activity was significantly increased. However, an item correlating with reduced serum ALT activity could not be clarified. In 17 patients with chronic hepatitis C, there were no significant Immunocal-related changes in liver function test or immunological parameters. These findings suggest that long-term supplement with Immunocal alone may be effective for patients with chronic hepatitis B, and a further clinical study that long-term combination therapy with Immunocal and other agents including interferon may be effective for those with chronic hepatitis C should be performed.