

Iwasa, M., *et al* (2010). **Restriction of calorie and iron intake results in reduction of visceral fat and serum alanine aminotransferase and ferritin levels in patients with chronic liver disease.** *Hepatology Research*, 40(12), 1188-1194.

6 months of calorie restriction and iron intake results in reduction of visceral fat area (VFA), liver enzymes and ferritin in patients with chronic liver disease and VFA were measured by InBody. VFA may be a central target for future interventions, not only in NAFLD but also in hepatitis C.

Kawaguchi, T., *et al* (2008). **Body cell mass is a useful parameter for assessing malnutrition and severity of disease in non-ascitic cirrhotic patients with hepatocellular carcinoma or esophageal varices.** *International journal of molecular medicine*, 22(5), 589-594.

Based on fat free mass (FFM) and body water, InBody is possible to provide body cell mass (BCM). From this research, a significant decrease in BCM in patients with liver cirrhosis compared to that in malnourished patients with chronic gastrointestinal diseases. Furthermore, there was a significant correlation with BCM and MELD score in cirrhotic patients without ascites and/or edema. Thus, BCM and FFM may be a useful parameter for assessing malnutrition and severity of liver disease.

Wang, X., *et al* (2002). **Sequential changes of body composition in patients with entero-cutaneous fistula during the 10 days after admission.** *World Journal of Gastroenterology*, 8(6), 1149-1152.

Serial measurements of InBody can quantify the disturbance of body composition in enterocutaneous fistula (EF) patients. Decrease in BCM and extracellular water (ECW) was the most significant change after the nutritional intervention. The early nutritional intervention rapidly ameliorates the abnormal distribution of body water while the surgical management prevents the further deterioration in cellular composition.

Tao, Q. S., *et al* (2007). **Early therapeutic benefit of enteral nutrition in active Crohn disease.** *Nutrition Research*, 27(2), 92-96.

This study have investigated benefit of an early therapeutic enteral nutrition (EN) in Crohn disease (CD) by assessing FFM and BCM of InBody. This study showed that an early therapeutic effect of EN on active adult CD is attributable to down-regulating systemic and intestinal inflammation.

Wu, J., *et al* (2007). **Nutrition assessment in children with short bowel syndrome weaned off parenteral nutrition: a long-term follow-up study.** *Journal of pediatric surgery*, 42(8), 1372-1376.

The purpose of the study was to assess long-term growth and nutrition status of children with neonatal short bowel syndrome (SBS) after weaning off parenteral nutrition (PN). Children with SBS are still at risk for different nutrient malabsorption even after weaning off PN for a long time. Therefore, they need long-term, regular monitoring and intensive nutritional care to prevent various nutrient deficiencies.

Kotoh, K., *et al* (2005). **High relative fat-free mass is important for maintaining serum albumin levels in patients with compensated liver cirrhosis.** *World J Gastroenterol*, 11(9), 1356-1360.

In patients with liver cirrhosis, hypo-albuminemia causes edema and ascites. The study investigated the correlation between serum albumin levels and the FFM in cirrhotic patients. In patients with active cirrhosis, albumin levels during the observation period showed a significant correlation with FFM. The results indicate that cirrhotic patients with high FFM showed less of a decrease in albumin levels, and that the muscle volume is one of the most important factors for maintaining serum albumins level in active cirrhosis.