HHP treatment was proposed to reduce the ripening time of cheese. Several characteristics of cheese ripening are changed by HHP, including proteolysis rate and composition, sensory attributes and texture. In this work, we studied the effect of HHP treatment on Reggianito cheese texture. Cheeses were pressurized at 100 or 400MPa and 20°C for 5 or 10min one day after cheese manufacture. Control cheeses (unpressurised) were included in the study. All cheeses were ripened at 12°C and were analyzed at 1, 45 or 90 days applying TPA and Uniaxial Compression Test. All cheeses showed a significant increase (p<0.05) in hardness and decrease (p<0.05) in springiness, cohesiveness, stress (s_f) and strain (ε_f) at fracture during ripening. Springiness of the cheeses treated at 400MPa-10min and cohesiveness of cheeses treated at 400MPa for both 5 and 10 min were significantly lower than those of control cheeses and cheeses pressurized at 100MPa, throughout ripening. At 1 day storage, pressurized cheeses had ε_f values significantly higher than controls, and cheeses treated a 400MPa showed s_f values significantly higher than the others. It was concluded that ripening time had the most important effect on all texture parameters, probably due to the reduction of cheese moisture. HHP treatment at 400MPa showed an effect on ε_f and s_f, but only at the beginning of ripening, as the differences disappeared with ripening time. For elasticity and cohesiveness, the effect of treatments at 400MPa was maintained throughout the cheese ripening, probably due to the pressure-induced increment of proteolysis.