Miocene tsunamiite-seismite stratigraphy in Chita Peninsula, Central Japan

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The Tsubutegaura sediment units have been noticed by the occurrence of tsunami-induced conglomerates (Shiki and Yamazaki, 1996). The conglomerates is in the Miocene shallow bathyal system which develops in the Chita Peninsula, central Japan. Paleoenvironments of the system have been elucidated by palaeontological, paleogeographical and sedimentological studies. Lately we made it clear that a lot of tsunami-current induced sandstones were distributed in the study area.

Those conglomeratic and sandstone tsunamiites are accompanied by various kinds of seismites, which are characterized by fluidized flow structures, water-escape structures, three types of dikes and so on. The tsunamiites and the seismites form a few units of several meters in thickness in the study area.

On the other hand, mudstones also form a few muddy units of several meters in thickness. The muddy unit develops sandwiched between two tsunamiites-seismites units. The muddy units were doposited without the influence of earthquakes, and refrect background sedimentation.

The obvious cluster of tsunamiites and seismites in the Tubutegaura units and the sole appearrance of them in the shallow bathyal system in Morozaki Group reveal an episodic seismic activity and an unique tectonic time in the forearc region of the Miocene, central Japan.