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[\[PDF \(488K\)\]](#) [\[References\]](#)**Histological Evaluation of Apatite Cement Containing Atelocollagen**[Masaaki TAKECHI](#)<sup>1)</sup>, [Youji MIYAMOTO](#)<sup>2)</sup>, [Kunio ISHIKAWA](#)<sup>3)</sup>, [Yukihiro MOMOTA](#)<sup>4)</sup>, [Tetsuya YUASA](#)<sup>4)</sup>, [Seiko TATEHARA](#)<sup>4)</sup>, [Hideyuki TAKANO](#)<sup>4)</sup>, [Shiho MINAMIGUCHI](#)<sup>4)</sup> and [Masaru NAGAYAMA](#)<sup>4)</sup>

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**Abstract:**

Tissue response to apatite cement (AC) containing atelocollagen (AC (ate)) was evaluated using conventional AC (c-AC) as a control material. At one week, the only difference between AC (ate) and c-AC was found in the soft tissue response. With c-AC, a moderate inflammatory response was exhibited: small particles of c-AC were scattered in the cutaneous tissue and many foreign body giant cells were aggregated around the scattered c-AC, whereas AC (ate) showed only a slight inflammatory response with few foreign body giant cells. In terms of bone tissue response, difference between AC (ate) and c-AC was observed at four weeks. New bone formation was observed along the cement at the edge of the pre-existing cortical bone in both c-AC and AC (ate). However, in the case of AC (ate), more abundant and thicker new bone was formed along the cement in the bone marrow when compared with c-AC.

**Key words:**[Apatite cement](#), [Atelocollagen](#), [Tissue response](#)

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